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Irish H & V News

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IRISH H&V NEWS

SEPTEMBER 1987

IRELAND'S BUILDING SERVICES MAGAZINE

Copper Cylinders — Prosecutions Likely?

AS WE went to press the possibility of criminal proceedings and even Fraud Squad involvement in the copper cylinder sector were hinted at by Eddie Cummins, Senior Scientific Officer at the IIRS and also by a spokesperson from the Office of Consumer Affairs. She told *Irish H&V News* that her office is presently investigating one particular instance which has been brought to their attention but would not comment further on the details since it is still being dealt with.

The whole area of copper cylinder failure because of corrosion fatigue has been a contentious issue for some time but recently the matter has been brought to the fore because of the IIRS's efforts to update the Standard covering the area. The urgency of the problem has also been highlighted because of the increased danger of failure owing to the use of "light wall" construction by some manufacturers.

To compound the problem even further, the insurance companies are also investigating the incidence of failure. At least one company has already made enquiries which suggest that, if they can prove that failure occurred because of negligence on the part of a manufacturer, then they would be seeking damages through the Courts.

Their argument is that, if design information (dating back as far as 1981) has not been availed of by the manufacturer, and if that can be pinpointed as being the cause of the failure, then they should not be expected to carry the responsibility.

The design information in question concerns a thesis published in that year by Eddie Cummins as part of his MA submission. In it he highlighted areas of concern which should be taken into account by copper cylinder manufacturers and, as

such, also brought to light shortcomings with the relevant Standard covering same, i.e. IS 161.

Irish H&V News spoke with Eddie Cummins before going to press and he told us that the first Irish standard specification for domestic hot water cylinders — IS 161 — was published in 1968 and that, despite a revision in 1975 covering one particular point, it is this revised Standard — IS 161: 1975 — which governs all manufacture of copper cylinders today.

Continued on page 2



• The new Grundfos Series 200 multi-speed industrial circulators which, in addition to many innovative features, have been specifically designed to simplify installation and operation. Details available shortly.

Armitage Shanks — 'In Mothballs'

WHILE THE closure of the Armitage Shanks' factory in Wicklow is scheduled for the end of this month with the loss of 44 jobs, spokesman Michael Egan told *Irish H&V News* that the operation is not being liquidated.

It is true that production will cease but the closure is more in the nature of a voluntary winding down with the entire factory "being put into mothballs" according to Mr Egan. He emphasised that he was not holding out false hope for the future but he did, nonetheless, confirm that the plant and machinery, including the factory buildings, were not being sold off.

As for the continuing presence of Armitage Shanks in the Irish marketplace, this will be maintained by the sales and distribution office Armitage Shanks (Dublin) Ltd which operates from Cookstown Industrial Estate, Dublin 24. All supplies will now be routed through this office with a total rationalisation of the whole

distribution/delivery system leading to a more streamlined and effective service for customers.

Commenting on the reasons for the closure, Mr Egan supplied *Irish H&V News* with the following statement.

"Since the introduction of free trade and the removal of tariff barriers a number of years ago, the Irish market for sanitaryware has become increasingly competitive. Added to this, there has been the continuing decline in demand.

"During this time, constant efforts have been made to ensure that the Arklow factory was supported from both a financial and a technological standpoint. Many of our customers — as well as members of the IDA and the Government — have seen for themselves the extent of capital investment in the factory which, over the last five years, has been in excess of £0.5 million.

HIGH PROFILE

"In its effort to maximise sales of Arklow products the company

has continuously adopted a high profile in the "Buy Irish Campaign" and Government Departments and local authorities have been constantly canvassed to ensure that maximum use would be made of Irish-manufactured goods in the various projects funded by them.

"At the same time, the company's trading losses have been substantial and have been supported both by increases in local bank borrowings and by increased financial support

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• Dr Eamonn P O'Connor (above) of Coal Distributors Ltd has taken up an assignment with Coal Information Services to deal with particular matters of interest to the coal industry at the present time.

Why Koolphen leaves all other insulation materials lagging behind.

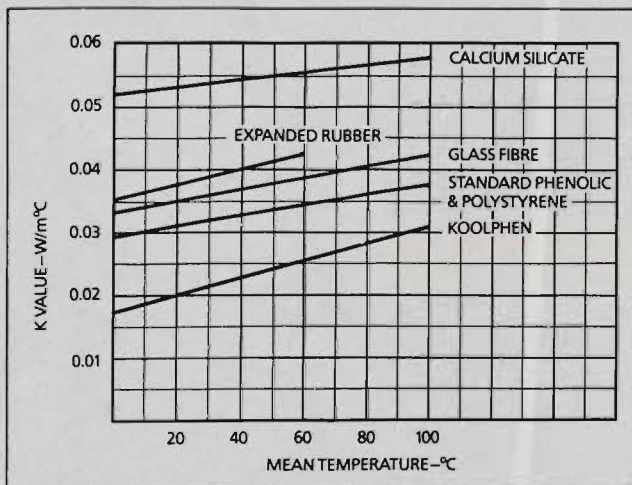
Although other insulation materials on the market meet all the rigorous safety requirements, not one would pass Koolphen's standards.

In every aspect, Koolphen is way ahead of the field.

Take fire for example.

Smoke emission is still the major hazard most insulation materials fail to contain.

Set flame to Koolphen however, and you'll notice two things that distinguish it from the rest. It doesn't melt and smoke emission is negligible (less than 5% was recorded in the BS5111 test).

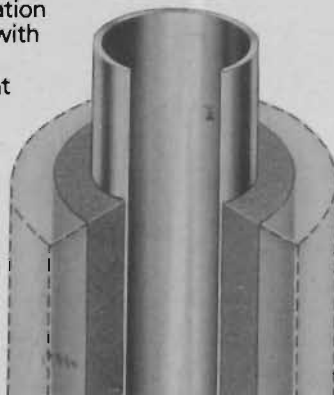


A major breakthrough, thanks to the combined efforts of Kooltherm and BP Chemicals.

Of course Koolphen also has a class 'O' fire rating.

So how does it conduct itself as an insulation material?

At the bottom of the insulation table, it comes out tops with a 'K' value of .020W/mk. An outstanding performance that shows standard insulation materials are really flagging. This excellent 'K' value means up to 50% of insulation thickness can be saved too. So Koolphen will never get you into a tight spot.



Its unique properties also mean Koolphen is just as resistant to water, as it is to fire.

This is all down to its closed cell structure and special vapour barrier. Water cannot penetrate, so wicking does not occur.

If by sheer chance the vapour seal is damaged, moisture is completely confined to the spot by the closed cell structure. And insulation performance remains intact!

Koolphen is produced in block form and is at its

best when used in heating and ventilating systems for insulating pipes and ductwork. It has a wide variety of applications and is also available as a laminate.

The current, full range of Koolphen products includes:

- *Blocks *Slabs
- *Cut Pipe Sections, Bends, Radiused and Bevelled Lags
- *High Density Pipe Supports
- *Class 'O' Covered Pipe Sections and Slabs, a factory applied Vapour Barrier.

Now that a revolution in insulation technology has occurred, you don't want to be left behind.



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Irish Heating & Ventilating News circulates to key executives in the heating, ventilating, air conditioning, refrigeration, sanitary ware, plumbing and environmental control industries. Its circulation also includes energy managers, architects, designers, sanitary engineers, environmental engineers, housebuilders and building merchants in the 32 counties of Ireland.



MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS



• Denis Walshe, General Manager, Grundfos (Ireland) Ltd, watching Pat Lehan, Editor Irish H&V News, pick the winning ticket in the first of three monthly draws in the Grundfos "Contractor/Counter Hand Competition" which the company is sponsoring over September, October and November. (See Plumblines for details). The September winners were Contractor: Ian Lochart of Glenmaquin, Convoy, Co Donegal; Counter Hand: Trevor Borland of James Johnston & Sons Ltd, Port Road, Letterkenny, Co Donegal.



• The De Dietrich CFX 200 cast iron boiler (oil and gas suitability) with control panel and burner. See boiler feature page 18.

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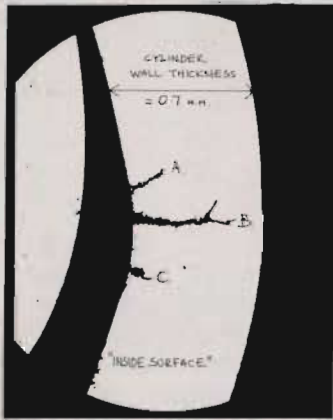
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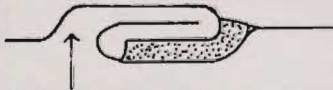
Editor: Patrick Lehan
Advertisement Manager: Joe Warren

Origination and Design:
Design Enterprises/Graphic Vision. Tel: 616033.

H&V NEWS



• Note: A, B and C indicate corrosion fatigue cracks.



Continued from cover

Consequently, the Standard as it stands presently is out of date in many respects. For instance, it only covers direct cylinders while it also allows for the "traditional" seam to be used by manufacturers, despite evidence which suggests that the "modified seam" as proposed by Eddie Commins is infinitely stronger.

According to Eddie Commins, the present Standard classifies cylinders on the basis of a grading system related to static working head, "the most popular cylinder among Irish consumers", he went on, "being the Grade 3 unit which is classified in IS 161: 1975 as being suitable for use up to 10-metre static head. In practice, Grade 3 units have not been used above a static head of five metres.

"This reluctance to use Grade 3 cylinders up to their associated maximum allowable static head was fortuitous in that it has been shown recently that bending stresses at traditional offset joints would be as high as 90% of that which would be required to fail the material."

HIDDEN DANGERS

This one example demonstrates the need to be careful about the contents of Standards

"Added to the problems with the Standard itself, market forces of late have caused a further serious difficulty in relation to the supply of so-called "light wall" cylinders," continued Mr Commins.

"Until recently the local authorities had a significant demand for domestic hot water

cylinders in their housing schemes. However, the decline in construction has had a serious parallel decline in the demand for cylinders. The result is that most purchasers of copper cylinders now come through the builders provider and merchant.

"In this environment, cylinders tend to be bought on price whereas the local authorities have generally emphasised the importance of quality, irrespective of price. Such economic forces have resulted in a new market position with some manufacturers offering "light wall" cylinders for sale on the basis that they are of Grade 3 quality.

"Unfortunately, cylinders of the light wall construction are generally 35% less in body thickness than the nominal Grade 3 value and are therefore considered to be totally unsuitable by the IIRS for heads in excess of 3 metres."

Realising this scenario and the implications for the future, the IIRS set in motion a series of meetings with the manufacturers some time ago aimed at getting a consensus of opinion which would allow for the formulation of a new Draft Standard to cover copper cylinders.

Unfortunately, the process has been very cumbersome with Eddie Commins and his colleagues being disappointed with the input of some manufacturers.

On the other hand, at least one manufacturer has already adopted the suggestions put forward by Mr Commins, first in 1981, and also at later intervals when further research of his pinpointed new areas of improvement.

Against this is the suggestion from another that copper cylinders should have a limited lifespan, effectively built-in obsolescence after five years. This idea is totally unacceptable to Mr Commins and is also a proposal which greatly concerns the Office of Consumer Affairs' representative who was present at the last meeting of manufacturers and IIRS personnel.

HOW MANY MANUFACTURERS

With the recent liquidation of Lyrice Jones Ltd of Wicklow (a creditors meeting was held in the Victor Hotel, Dublin on 8

September), many people now believe that there are only three manufacturers of copper cylinders in Ireland — Coppercraft Ltd, Irish Coppersmiths and Austom (Galway) Ltd.

However, as the following indicates, the Lyrice Jones Ltd business had been "changed over" to another company — Nationwide Insulations Ltd — with effect from 1 July last. A letter sent to one customer on Lyrice Jones Ltd letterhead and dated 26 June 1987 read as follows:

"With effect from 1st July 1987 the business of Lyrice-Jones Ltd is being carried on by Nationwide Insulations Ltd using the registered business name of Lyrice-Byrne. Your present and future orders will be completed by Lyrice-Byrne. Your account to 30th June, 1987 with Lyrice-Jones Ltd should be paid directly to Lyrice-Jones Ltd at the above address. All cheques for invoices dated 1st July, 1987 and after should be

made payable to Nationwide Insulations Ltd and addressed to Lyrice-Byrne, Industrial Estate, Wicklow, Republic of Ireland." Mr Byrne was away as we went to press but the foregoing was confirmed by the person who answered our 'phone call.

Consequently, there are still four copper cylinder manufacturers as far as *Irish H&V News* can determine.

Surely — provided they each show the goodwill and intention asked by the IIRS — there should be no difficulty in agreeing a Draft Standard for circulation within the industry for further comment.

To date, according to a spokesman, only one manufacturer appears to have totally embraced the recommendations as outlined and suggested by Mr Commins, particularly in relation to the use of "modified seams" for both the vertical and horizontal points. It will be to the benefit of the whole industry when the remainder follow suit.

EMA Exhibition — Surprise 'Postponement'

DESPITE OUR report last month confirming dates and venues for the proposed EMA Travelling Exhibition scheduled to take place at various locations over the month of October, the event has now been cancelled.

This surprise announcement was conveyed to intending exhibitors — there were 23 in all — in a letter dated the end of August.

The postponement decision was not so much one taken by the EMA but rather one made by senior personnel within the IIRS. An internal memorandum dated 24 August was circulated to the EMA executives concerned, informing them that the approval for the travelling exhibition granted on 30 July last was being withdrawn.

Essentially, the reason given was that — because of imminent and other potential changes "which may affect the Institute", such a travelling exhibition was not appropriate at this time. Of particular concern, according to the memo, was the planned Autumn PR programme which would

mean no one from the PR section being available to assist with the exhibition.

A response to the memorandum was immediately prepared indicating that the EMA was quite willing to undertake the organisation of the travelling exhibition without the assistance of the Institute's Public Relations section. It was also pointed out that, whatever the situation, 80% of the entire work associated with the event had already been completed and that some intending exhibitors had already incurred expenditure with regard to stand preparation.

A detailed financial projection was also presented, which outlined clearly the economic reasons for going ahead with the exhibition.

Nonetheless, the original decision and "approval withdrawal" as contained within the internal memorandum of 24 August was confirmed, with a letter subsequently being sent to intending exhibitors at the end of August informing them of that decision.

See also page 12

No flap – Less hum.



The Humming bird gets its name from the characteristic noise its wings make as they beat together up to 100 times per second, enabling it to fly at speeds of over 70mph and creating quite a stir in the atmosphere.

Fortunately the elegant range of Carrier packaged and split air conditioning units require nowhere near as much energy to run.

And naturally without all the flap produce far less hum.

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WALKER AIR CONDITIONING



Carrier 30GQ 080 air to water heat pump serving the air handling plant at Trillick Leisure Centre, Co. F.



The swimming pool and restaurant area at Trillick Leisure Centre, Co. F. conditioned by Carrier.



Carrier 19EA centrifugal liquid chillers installed in the headquarters of the Bank of Ireland, Dublin.

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Continued from cover

from the Amitage Shanks parent company.

"This support ensured that the factory maintained its position as a cost-efficient production unit.

"However, over recent years the poor level of market demand has necessitated, at various times, reductions in the level of output from the factory and for the last few months the factory has been producing at the minimum level necessary to maintain a viable operation. Despite these measures, it has not been possible to prevent stock levels from continuing to

increase.

"Faced with the continuing mounting losses and the increases in stock levels and, in the absence of any likelihood of improvement in the foreseeable future, the company has, regrettably, been left with no alternative but to close the factory.

"We are extremely conscious of the high level of support which the company has enjoyed from the merchant trade and the construction industry in Ireland and we wish to confirm our continuing commitment to the Irish market which will now be serviced completely from our Tallaght location."

Walker Dublin Office Restructured



• Walker restructuring - John Shields, Internal Sales Engineer with Kieran Butler, Project Manager; Derek Duff, Sales Engineer; and Michael Buckley, Sales Director.

TWO MAJOR developments in the Dublin Office of Walker Air Conditioning have been announced. The first of these is the restructuring of the Dublin Project and Service Departments and the second is the addition of two new staff members in the Sales Department.

Tom McDonnell has been promoted to Project and Service Manager with overall responsibility for both Departments.

Due to increase in business throughout the Service Department, John Marriott has transferred to an internal position involving less travel. This will release more of his time for the day to day running of the Department, reporting directly

to Tom McDonnell.

To assist Tom with the Project Department, a new member of staff, Kieran Butler has been appointed as Project Engineer. Kieran has worked for a number of years in the contracting side of the industry and his experience in this field should prove an invaluable asset.

It has already been necessary to expand the sales team which recently welcomed Derek Duff as Sales Engineer and John Shields as Internal Sales Engineer. Both Derek and John will report directly to Gerry Ross with the aim of holding and increasing Walker's already substantial share of the market.

VEHA — Still No News

AS WE went to press none of the interested parties were in a position to comment on the latest state of affairs with regard to the likely purchase of the Veba radiator plant from the liquidator, Paddy Butler of Touche Ross.

Following a very bitter nine-month strike because of proposed lay-offs, the plant eventually went into voluntary liquidation over 12 months ago. Since then there have been rumours of various take-over offers by a number of consortia but the only one reported in any great detail of late was that made by Conor Casey, Managing Director of Blundell-Permo-glaze (Ire) Ltd.

He is said to have made a £2

million bid for the factory and to have stated that he would re-employ 120 of the former workforce on a "week-on, week-off" basis.

However, any successful bid is also constrained by a list of pre-conditions laid down by the ITGWU. A ballot of the workforce by the Wicklow County Development Team is said to have resulted in a majority in favour of dropping the pre-conditions but another by the workers themselves apparently voted to keep them.

Irish H&V News understands that discussions on at least one offer for the liquidated plant are still in progress but no one was in a position to comment as we went to press.

BRIEFLY

• **New MD at Campbell & Cooke** — David J. Cooke has been appointed Managing Director of Campbell & Cooke Ltd, sole distributors of Aga cookers; Rayburn cookers and room heaters; Coalbrookdale solid fuel and gas room heaters; Don oil and gas conversion units; and BM oil controls. He joined the company in 1974 and became Sales Director in 1983.

show significant decline as penetration is reached, further intensive marketing is expected and only a minimal decline is forecast next year.

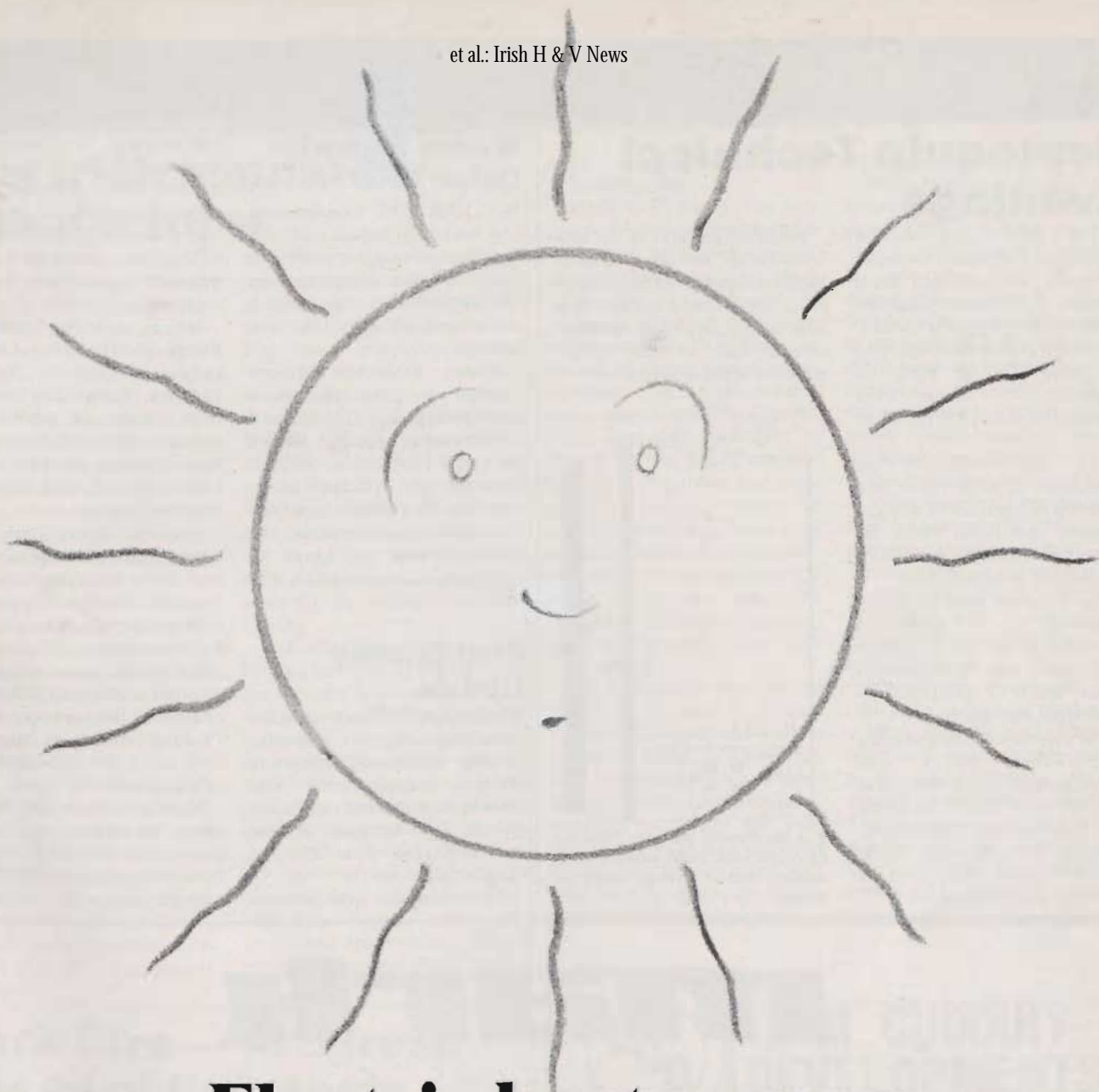
Whither Cheney Mechanical Services?

AS WE went to press Frank Cheney of Cheney Mechanical Services Ltd and CMS Air Conditioning & Heating Supplies told us that both companies were still trading despite rumours to the contrary.

However, he did acknowledge that, as we spoke, he was in the process of negotiating arrangements with his bank to ensure that the situation remained so.

If he failed, he said, then it was possible that at least one of the companies — if not both — would cease trading. He said that the difficulties he had experienced of late were due to under-financing. However he said that if discussions with his bank went well, then all would be resolved.

Hopefully, despite these difficulties, Mr Cheney will succeed in his efforts.



Electric heat pumps.

Curiously, they're the most effective way to cool your premises.

At first sight, 'heat pump' may sound like an odd name for one of the most energy efficient cooling systems around. But it's a fact that electric heat pumps offer many of the benefits of air conditioning - and are cheaper to run; in fact, using night rate electricity at less than one third the normal price, heat pumps provide the cheapest form of cooling available. Heat pumps can cool a wide range of buildings; everything from a shop to a supermarket to a large plaza, providing a cool, comfortable environment even during the hottest summer. And of course, when the weather turns

cold, heat pumps can reverse automatically and provide heat for the same locations.

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H&V NEWS

Heatequip Technical Evenings

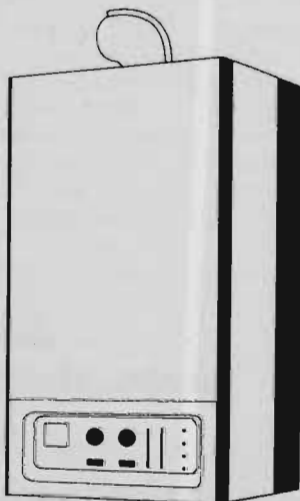
OVER THE last month Heatequip Ltd held a series of technical evenings at three separate nationwide locations — the Ashling Hotel in Dublin; the Imperial Hotel in Cork; and the Royal George Hotel in Limerick — which were attended by nearly 150 people in all.

The main bulk of the attendance at each venue was made up of contractors and gas industry personnel with 50 present in Dublin; 62 in Cork and over 30 in Limerick.

The evenings were primarily intended as a technical introduction to the Potterton Lynx electronic combination boiler which is available ex-stock from this month.

The presentation comprised a video film which was accompanied by a technical talk. Present from Potterton were Bob Charlett, Export Sales Manager, Potterton and Eddie Smith, from Potterton's technical department.

Principal features of the new Lynx are the 360° flue with up to 10 metre capability and, perhaps more importantly, the fact that all servicing requirements can be carried out by the simple removal of the front panel.



• A line drawing of the new Potterton Lynx electronic boiler unveiled to the industry at three separate venues last month.

Walker Sign with Delair

WALKER AIR Conditioning Ltd have finalised an exclusive distributorship agreement with Delair, for their complete range of atmospheric air drying equipment in the UK and Ireland.

These desiccant dryers operate on the absorption principle which is effective at all temperatures, whereas drying air by the refrigeration method becomes less efficient below freezing. The Delair products therefore complement the existing Walk-Air range of refrigeration dehumidifiers.

Fred Cooney Update

FRED COONEY, who over the years built up an extensive trading group incorporating service, manufacturing and distribution interests only to see it all fail because of the recession, has now reverted back to his roots.

In forming Reconair Services

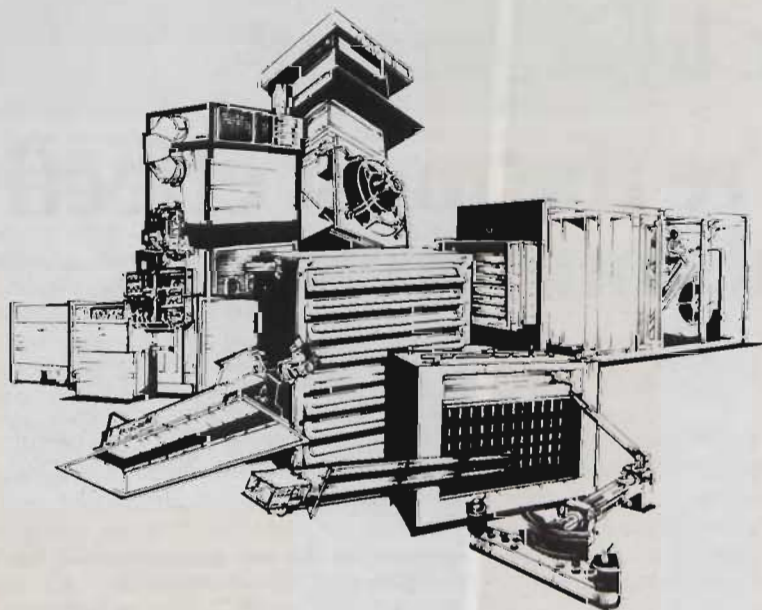
Ltd recently, Mr Cooney has returned to an area of the industry — maintenance and service — which he began in many years ago and which formed the cornerstone upon which all expansion took place in later years.

He is now trading from Barclay House, Lilmar Industrial Estate, Santry, Dublin 9, (Tel: 425200/924/978) from where, in addition to service and maintenance, he also has a sales aspect dealing in Denco, Cliref and Defensor product ranges.

In the meantime, the receivership of Reconair Ltd continues. As we went to press Receiver George Moloney of O'Hare Barry & Associates told us that, at present, he has just reached the stage where the disposal of the assets can begin in earnest. He was appointed in 19 June last but, it has taken until now to get all the necessary details sorted out.

However, while the sales of assets has commenced, he said that it will still be some time before the complete final picture emerges.

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- AIR HANDLING UNITS.
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New Irish Insulation Manufacturer

O'KEEFFE Manufacturing Products Ltd are a wholly owned Irish company producing "Koolphen" rigid pipe sections for the insulation of cold and hot work in the mechanical services industry. "Koolphen" is a phenolic foam developed by BP Chemicals and Koolthern UK. "Koolphen" has many advantages over the majority of insulation materials on the market, i.e. Class 'O' fire rating, it does not absorb water, it has a very low K value .020 w/m²°C.

This of course means that up to 50% of insulation thickness can be saved — a real benefit where space is at a premium. In addition, it offers benefits of strength, low weight, low cost and ease of handling and application.

The range of "Koolphen" products includes slabs, heavy density pipe supports, pipe sections, preformed bends, radius and bevelled lags for use on vessels — all manufactured to a density of 35KG/M³. Higher densities are available up to 200 KG/M³ for special applications.

O'Keeffe Manufacturing have been producing Koolphen in Ireland since February 1987 and have supplied pipe sections and vessel insulation to the following end users — Angus Fine Chemicals; Pfizer Chemical Corp; Wexport; Henkle Ireland; Master Meat Packers; Goodman International; Beamish and Crawford Breweries; A Guinness & Sons; Bon Secours Hospital; Swisco; Du Barry Shoe Company; An Post; Thermoking; Mitchelstown Co-Op and Ballyclough Co-Op.

O'Keeffe Manufacturing are located in a 6500 sq ft factory in the Kinsale Road in Cork and currently employ a workforce of eight and are proud of the reputation they have gained within the industry in a short period for producing a quality product at competitive prices, on time. In addition, O'Keeffe's are agents for the Childers range of mastics, coatings and adhesives which cover all insulation applications. (They can be contacted at 021 311327).

Mark Éire — Progress Ahead of Forecasts

MARK, ONE of Europe's largest manufacturers of heating equipment and pipe-bending machines has gone from strength to strength since opening its Irish factory — Mark Éire BV — in Coolea, Macroom, Co Cork (026-45334/45367), in January of this year.

Located in the heart of the Cork Gaeltacht region, the factory provides much-needed employment from its 1200 sq ft location. Heading up the operation are Mike Donoghue and Billy Lynch.

Mark Éire BV is the youngest branch of the Mark BV Holding companies, commencing manufacture on the first of January of this year. Mark Holdings' other companies are located in Veendam, North Holland, Deil, Central Holland and Nottingham in the UK.

The parent company was founded in 1945 in Veendam Holland, directly after the war.

It now employs 83 people. Mark Deil and Mark UK are the sales force of the organisation. Mark UK besides agents, has office personnel, engineers and their own sales force in total 12 people. Mark Éire now employs 10 people.

The Mark products include:

- Suspended unit Air Heaters — Natural Gas/Propane;
- Cabinet Heaters — Natural Gas/Propane/Oil Fired;
- Make Up Air Units — Natural Gas/Propane Fired;
- Industrial Burner Equipment — Natural Gas/Propane/Oil Fired;
- Radiant Heating (INFRA) — Low Temp. Natural Gas/Propane;
- Radiant Heating (HT) — High Temp. Natural Gas/Propane;
- Warm Water Unit Air Heaters; also Medium Hot Water and Steam;
- Air Handling units;
- Recycling Ventilation Units;

and

- Tube Benders.

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IDHE NEWS ... IDHE NEWS ... IDHE NEWS ... IDHE NEWS ...

Annual General Meeting Report

The 1987 AGM of the Institute was held at 22 Clyde Road, Dublin 4 earlier this month (3 September) and was attended by approximately 25 delegates. Overall it was a very straightforward affair with Chairman Harry Pattison conducting the proceedings in a brisk, efficient manner. There was quite a bit of inter-action among delegates on a number of issues which were raised for discussion, with the end result being a very satisfactory and fruitful AGM. A brief resume of the meeting follows.

Chairman Harry Pattison opened the proceedings by welcoming those present, with a particular word of thanks for his attendance going to President Bob Couchman. He in turn conveyed to the meeting the apologies of Hugh Maguire who was unable to attend because of a prior engagement.

Chairman's Report

Mr Pattison kept his comments very brief, preferring instead, he said, to let the various Officers' reports suffice as the yearly round-up of activities.

However, he did ask it to go on record that a special vote of thanks should go to Bill Penrice for his Convention work and that Christy Kane should also be thanked for the fact that, while there seemed to be some confusion at last year's AGM *viv a vis* the preparation of accounts, the reality was that there were no discrepancies.

On the question of the Cork Branch he reported that it was in the process of being re-activated. He said that there had never been a problem with members but that the difficulty lay in getting officers willing to serve for the Branch. However, indications as we go to press are that this problem will be overcome shortly.

Mr Pattison's only other comments concerned the future. He said that members could rest assured that the Institute as a representative body was stronger than ever and that any challenge likely to arise in the coming 12 months would be competently and effectively dealt with.

Hon Sec's Report

Next on the agenda was Honorary

Secretary Bill Penrice's report. He again was very brief and to the point. He explained that, because of the Convention — which was very successful — technical evenings amounted to only three for the full term. However, these included an attendance of 75 at the Grundfos lecture (at which 16 new student member applications were received); the Sanbra Fyffe factory visit; and the CHS/Drayton Controls evening which attracted 35 people, despite the fact that a postal strike at the time meant many invitations and notifications not being delivered.

Back to the Convention, Mr Penrice paid special tribute to Jim Maher who chaired the proceedings. He also said that, despite it being a success from a commercial and sponsor point of view, the participation as delegates by members was a disappointment.



● Harry Pattison who was unanimously elected chairman for another term at the IDHE AGM earlier this month.

Hon Treasurer's Report

Shay Kiernan as Honorary Treasurer followed next with his report. He spelt out by way of the final accounts just how successful the year had been financially, mainly because of the Convention. But again there was a note of warning. He also indicated a shortfall in subscriptions over the previous 13-month period.

In explanation to questioning from the floor, he said that altogether there are over 60 "members" who are not paid up.

Education Report

Finally there was Joe Hogan's report as Education Officer. As usual at this time of year he began with a plea

for new students but, that said, was able to report that indications already were that at least five new students would be availing of the IDHE course. This is encouraging given that enrollments have yet to be advertised with regard to dates of attendance. This should be towards the end of September, the venue being Bolton Street.

Details for the first year course are finalised and there is also a plan to organise a 2nd-year course for those who successfully completed the 1st-year syllabus last year.

Before holding the elections for next year's Committee, Mr Pattison called on President Bob Couchman to round off the formal addresses of the evening.

President's Address

Again at pains not to delay those present any longer than necessary, Mr Couchman kept his comments very brief. In addition to acknowledging the efforts of Officers and Committee members over the past 12 months, he echoed Mr Pattison's sentiments *vis a vis* the Institute as it stands today.

He accepted that it had been an especially rough year in many respects but argued that the IDHE is now stronger than ever as a result. He said that a great deal of respect had been won — both within industry and in the public's perception of the Institute — and that this should now be capitalised on.

From an organisational point of view he said that the IDHE was now more secure than it had ever been in terms of student membership, its finances and general standing.

Thereafter the elections were held with a number of points being raised from the floor with regard to nominations before the final voting took place. However, the Committee was eventually elected which in turn — according to tradition — met on the close of the AGM to elect the officers. See below for details.

IDHE Officers & Committee

Chairman — Harry Pattison
Hon. Secretary — Bill Penrice
Hon. Treasurer — Kevin Finnerty
Education Officer — Joe Hogan
Committee — John Duignan, Paul Fox, Paddy Murray, Gerry Phelan and Jim Maher.



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CYLINDERS — CALORIFIERS — HEAT EXCHANGERS — BACK BOILERS

Corrosion and Cracking in C.H.B.

By Noel Walshe,
BE Mech. Eng.

The industry is well aware of the expense and inconvenience incurred by the premature failure of central heating boilers. This article gives an insight into the nature of the problem, how it arises and how it can be effectively controlled. A boiler can be perceived as a water-cooled vessel designed to efficiently extract heat from a thermal reaction. As such it is subject to thermal stress and to corrosion from the products of combustion. In order to minimise damage from these sources, it is necessary first of all to examine the influence of the following factors:

- (1) Low water circulation;
- (2) Water dew point corrosion;
- (3) Acid dew point corrosion;
- (4) Inadequate maintenance.

Low water circulation – The intense heat of combustion in the first pass is transferred by radiation to the surrounding wall, elevating its temperature above that of the boiler water. The inside wall expands from the heat, subjecting the outer wall to a tensile strain. If the metal inside the boiler becomes overheated, the strain may become excessive and cause the boiler to crack. This is particularly so in the case of cast iron which, while good when in compression, is relatively poor in tension.

Overheating will arise from poor water circulation through the boiler. This occurs when heating circuits are closed off and by the action of TRVs and mixing valves which, by design, reduce flow rates to the boiler in mild conditions.

The solution lies in maintaining an acceptable flow rate whenever the burner is in operation and for approximately three minutes after the burner shuts down.

Water dew point corrosion: oil

– Heating oil contains approximately 12% hydrogen and 1% sulphur and when 1 kg is burnt the products of combustion contain 1.1 kg of water vapour and .02kg of sulphur dioxide. If the temperature of the boiler wall is below the water dew point of 48°C, condensation of the vapour will take place. The sulphur dioxide will then be absorbed by the vapour forming dilute sulphurous acid H_2SO_3 , which is corrosive. If boilers are operated below dew point for long periods, serious depletion of the metal wall on the fireside takes place. A boiler, for instance, whose temperature does not exceed dew point when operating, may fail within two years. The most serious corrosion is associated with intermittent operation, large system capacity and low temperatures.

Dew point natural gas – For every kg of natural gas ($1.5m^3$), 2.25 kg of water vapour is formed from combustion. Below dew point the condensation will absorb the carbon dioxide present to form weak carbonic acid which is slightly corrosive. However, operating for long periods below dew point will again lead to damage and the formation of rust-laden pools of water on the boiler house floor.

Prevention of dew point corrosion – Many installations from cold start may take over an hour before exceeding dew point. To overcome the problem, shunt pumps are sometimes used, but these are of little benefit as long as the full flow rate is maintained to the load. Under these conditions the shunt pump will only succeed in reducing the temperature

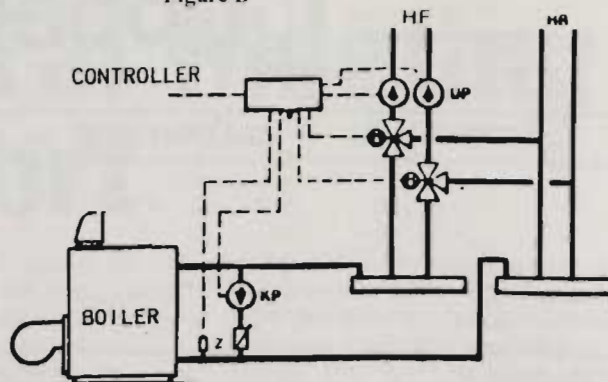
difference between flow and return, while the rate of elevating the mean temperature of the boiler will be determined by the boiler output and the thermal capacity of the system.

To minimise condensation, the return temperature must be elevated above 56°C or (as recommended by the boiler manufacturer) and maintained above this level during the burner operation. To do this, the flow must be shortcircuited back into the boiler return until the return temperature safely exceeds the dew point.

Acid dew point corrosion – At a temperature of 400 – 1200°C, between 1% and 4% of the sulphur dioxide (SO_2) is converted to sulphur trioxide (SO_3). Both gases are easily absorbed by the water vapour to form sulphurous (H_2SO_3) and sulphuric acid (H_2SO_4) respectively. Sulphurous acid condenses at 100°C and sulphuric acid at 338°C, but the two acids — together with the water vapour — condense out between 100°C and 160°C, tending towards the higher figure with higher concentrations of sulphuric acid. In the case of heating oil with a sulphur content less than 0.3%, the corrosion is of little concern as the acid dew point lies close to the water dew point. If the boiler is then operated over dew point, it is automatically protected against acid dew point corrosion.

As the sulphur content of the fuel and the amount of excess air increases, so too does the quantity of sulphuric acid formed which increases the risk of corrosion.

Figure B



The graph (Figure A, opposite) shows the rate at which acid is deposited as a function of boiler water temperature. Below the water dew point D, the precipitation of acid increases with a corresponding increase in corrosion. This is because the acid is dilute and highly-corrosive. The quantity of the acid laid down with increasing temperature peaks at A and ceases at C, the acid dew point.

Between the two dew points the rate of corrosion is greatly reduced, the reason being that the sulphuric acid is highly concentrated and as such is not very corrosive. However, sulphuric acid is hygroscopic and when the heating is switched off over a period of time, the acid will dilute from moisture in the air and corrosion will then proceed. **Maintenance** – From our discussion, the importance of regular cleaning can be readily understood within the context of boiler life.

System design: A heating system should be laid out so that the water dew point temperature is exceeded in the minimum time and that the minimum flow rate is maintained in the boiler. This example (Figure B, above) shows how a typical system can be arranged to meet the above requirements without great expense.

This system incorporates compensator controlled mixing valves to which is added a shunt pump and a sensor on the return. This sensor overrides the outside weather sensor until the minimum return temperature is achieved and the shunt pump maintains the minimum circulation.

ACID DEPOSITION AND CORROSION AS A FUNCTION OF WALL TEMPERATURE

Rate of corrosion

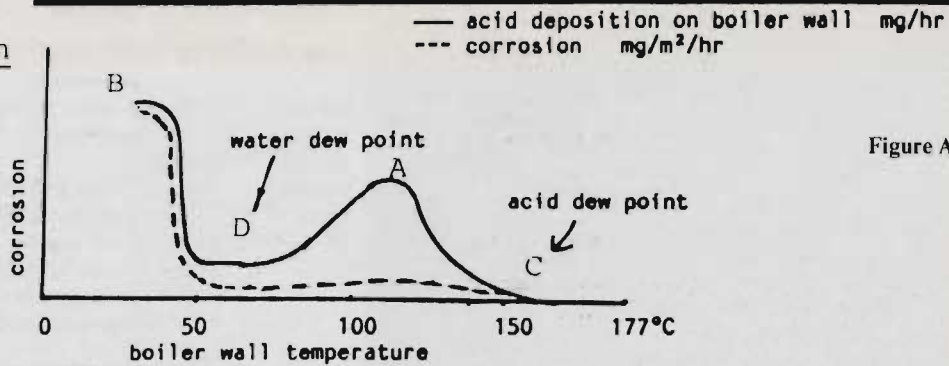


Figure A

Recommendations for boilers over 100KW – (1) Use low sulphur fuels; (2) Maintain the minimum excess air compatible with good combustion; (3) Avoid operating at the peak of the acid dew point curve if possible; (4) Clean the boiler carefully at regular intervals, especially at the end of the heating season; (5) The system and controls should operate such that priority is given to quickly elevating the return water temperature above this limit during its entire operation; (6) As a safety precaution, the shunt pump should be so wired that in the event of it failing the

burner is rendered inoperable; (7) The volume of water flowing through the boiler(s) must, at a minimum, correspond with a temperature difference of 30°C; (8) The circulation around the boiler(s) must be maintained for at least three minutes after the burner shuts down.

Water treatment – Water can affect the surfaces with which it comes in contact as follows: (1) Hardness salts may precipitate to form scale which increases fuel consumption and may ultimately cause the boiler to crack;

(2) Oxygen dissolved in the water causes pitting and general wasting leading to the formation of magnetite in the base of the boiler resulting in blockage of the waterways and cracking; (3) A low pH promotes corrosion; (4) Bacteria can attack iron and copper forming sulphides.

Recommendations

(1) Check with the boiler manufacturers the level of hardness which can be tolerated by their equipment, particularly in the case of a hard water area, and soften the fill and make up water as

required;

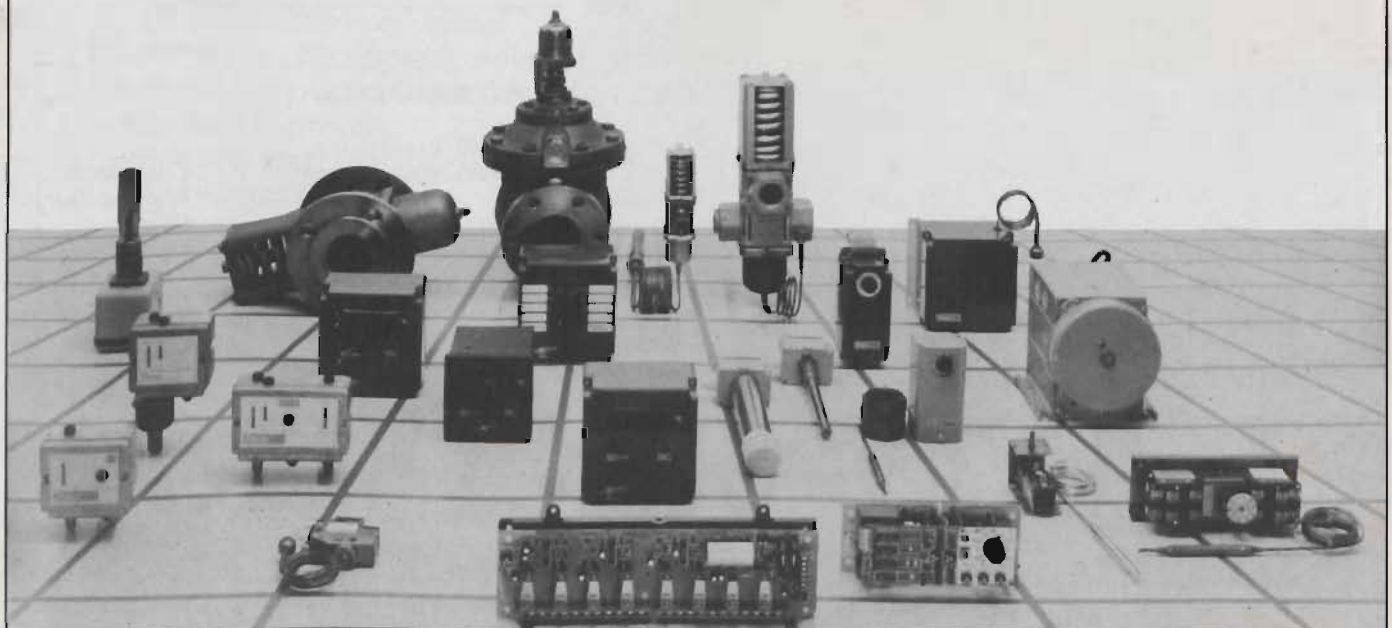
(2) Prevent pitching, seal leaks and add an inorganic oxygen scavenger; (3) Adjust the pH between 9.5 and 9.8; (4) Sterilize the system periodically.

Boiler replacement: When a boiler fails, the cause of failure should be investigated and action taken to prevent a recurrence. Any boiler sludge present should be removed and a sludge pot fitted on the return.

Boiler assembly: A boiler should be assembled fully in accordance with the manufacturers recommendations.

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Exhibition Postponement

Continued from page 2

As we closed for press Brian Rothery — IIRS PR spokesman — conceded that there was concern in some quarters but explained that, given the very critical phase the Institute is going through at present, it was perhaps inevitable that unpopular decisions would be made.

"With the amalgamation of the IIRS and the NBST going through at present", he said, "it behoves us to look very carefully at how we allocate our resources. We have a 3-man PR team here and up to now we have all been actively engaged in the EMA Travelling Exhibition.

"However, given the demands on our time for other — deemed to be more important — matters at the present moment, we simply cannot provide the back-up service we normally would.

"We have had to re-evaluate our priorities and may I add, it's not just the activities of the EMA which are affected. Nonetheless, it is unfortunate that the timing of the Travelling Exhibition should coincide with this major development in the affairs of the Institute.

"The new Board of the amalgamated body will be meeting at the end of this month and even after that it is going to take some time before the priorities of the newly-constituted body will be established".

Winter Programme for 1987

Mid-Western Region

EMA NATIONAL AWARDS SPONSORED BY BORD GAIS EIREANN

Limerick Morning
11/11/87 Awards Ceremony and
Presentation of Awards
Afternoon:
Presentation of extracts from
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Southern Region

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Fhírtéaraigh bheag agus meánmhéid
Óstan Dhún 2. Fuinneamh do bharraí
an Óir cosanta
27/10/87

3. Fuinneamh Ó Bhiomass
4. Fuinneamh Gaoithe agus
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T. ÓFlatharta
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A. de Paor
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INDUSTRIAL FUELS

Cork 1. Supply and price prospects
Silver for fuel oil
Springs
Hotel 2. Supply and price prospects
17/11/87 for industrial coal
3. Supply and price prospects
for electrical energy
4. Supply and price prospects
for Natural Gas/LPG

P. Leahy
Irish National
Petroleum Corp.
A. O'Dea
Coal information
Services
K. Harley
E.S.B.
Seán O Muirí
Asst. Secretary
Dept. of Energy

North-Western Region

ONE DAY FUEL EFFICIENCY WORKSHOP

Galway Corrib Great Southern Hotel 26/11/87	1. Energy units, conversion tables, fuel prices and supply scenario 2. Direct fired and catalytic gas heaters using LPG/Natural gas for space heating, drying and industrial process 3. New developments in lamps, light fittings and lighting controls 4. Heat loss calculation for buildings and processes. Standards of insulation for older buildings and boilerhouses 5. User — friendly computer Systems for small/medium application and to control space heating, lighting etc. 6. Raising the standard of steam plant efficiency — steam distribution and use 7. Oil and gas burners — efficient operation and new technical developments 8. New developments in compressed air installations. Choice of compressors and waste heat recovery	Regional Energy Officer G. McMahon Calor Kosangas V. Lyons Philips Ireland Ltd. J. Vaughan T.I.D. and Regional Energy Officer D. Reid Hanley Controls Slane C. Billings H&V Ltd. P. Mooney Ingersoll-Rand Co.
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INDUSTRIAL FUELS

Sligo Southern Hotel 3/12/87	1. Supply and price prospects for fuel oil 2. Supply and price prospects for industrial coal Services 3. Supply and price prospects for electrical energy 4. Supply and price prospects for Natural Gas/LPG	P. Leahy Irish National Petroleum Corp. A. O'Dea Coal Information K. Harley E.S.B. Seán O Muirí Asst. Secretary Dept. of Energy
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Eastern Region

BUYING ENERGY EFFICIENCY

Dublin IIRS Conference Theatre 22/9/87	9.30 am Registration 9.45 am Welcome and Introduction 10.00 am Developing energy technology 10.45 am Buying energy technology 11.30 am 11.45 am Marketing energy technology 12.15 pm Discussion 12.45 pm Lunch	P. Brabazon Regional Energy Officer Dr. J. Maund Admiral Energy (Dublin) Ltd. Dr. Jones Admiral Energy (Dublin) Ltd. Tea/Coffee S. Daisley Admiral Energy (Dublin) Ltd.
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EMA NEWS EMA NEWS EMA NEWS EMA NEW

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Theatre
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Walker Air
Conditioning Ltd. |
| | 2. Heat pump applications in
bivalent systems | S. Homan
Seamus Homan
Associates |
| | 3. Legionnaires disease --
treatment of water
systems | M. Hoole
Cord Chemical
Co. Ltd.,
introduced by
Botam Water
Treatment |



• EMA Regional Committee representatives pictured at the AGM earlier this year.

Energy Seminars

INTRODUCTION TO REGRIGATION SYSTEMS
September 24,25

EFFICIENT USE OF ELECTRICITY
September 29

GOOD BOILERHOUSE PRACTICE
October 13,14

ENERGY EFFICIENCY IN DRYING PROCESSES
November 3

ENERGY MANAGERS TRAINING COURSE
November 18, 19 December 10

GAS SAFETY
December 3

WHO TO CONTACT ENERGY MANAGEMENT ASSOCIATION

Winter Programme 1987

Details from Energy Management Association
IIRS, Glasnevin, Dublin 9.
Tel: 01-370101

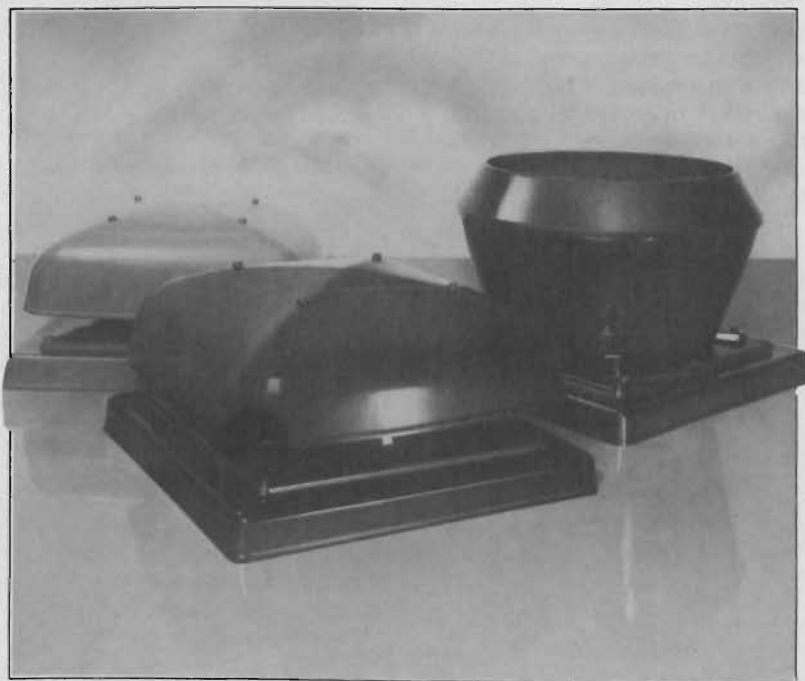
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FACE TO FACE

SEAMUS HOMAN

While the popular perception of Seamus Homan as the pure academic is understandable and even justified to some extent, it does nonetheless belie the fact that there is a great deal more to the man besides. Moreover, many might find it hard to believe that he is every bit the hard-nosed businessman as much as the philosophical theorist but such, indeed, is the truth of the matter.

That he can comfortably combine being both is a measure of his ability and nowhere is this more apparent than in the manner in which his career has progressed to date. This is particularly true of the last 10 years or so which has seen his reputation and standing within the building services sector rise to the lofty heights of "father figure" status.

Nor is this recognition limited to the Irish scene. He is also highly-regarded in the UK while even the USA recently paid him the hitherto unprecedented compliment of appointing him to the ASHRAE Programme Committee, the first time a non-American has given such responsibility.

Over the years he has championed many causes, not in the brash outspoken style adopted by some but rather in a low-key manner, preferring mostly to let his actions and general attitude do the talking.

A typical example is his thinking on quality assurance. Of late this has occupied a great deal of his time but very few would have guessed it — save the clients for whom he has been working — until he was awarded the Grundfos Striving For Quality Assurance Award earlier this year by the Minister for Energy, Ray Burke TD.

So what, some might say? ... the emergence of any new "thinking" such as quality assurance would obviously attract an academic such as he. So it would, and he readily acknowledges this but, in embracing it he sees its practical benefits. Indeed, given today's litigation-conscious tendency Seamus Homan sees it vitally important that all should adopt a quality assurance approach to their work.

Creating a good image

"Additionally", he told *Irish H&V News*, "individual practices, and of course the industry at large, can benefit from QA



• Seamus Homan with the Minister for Energy, Ray Burke TD, following the Grundfos Striving For Quality Assurance Award presentations earlier this year.

because of the better end service the client receives. I concede that it will perhaps cost me, as the consultant designer, just that little bit more to provide but I also know that it is the very thing which will set me apart from the designer who doesn't.

"The fact that I strive towards QA also helps me in respect of tendering for new work. It is very difficult — as any consultant knows — to retain a sensible margin in pricing work today with even Government Departments canvassing openly for the 'cheapest' quote in many projects. Faced with such odds I try to be both philosophical and realistic in my approach. Combining the two is difficult under such pressure but I know that my emphasis on QA can very often give me the edge, even if my tender is not the lowest.

"That's not to suggest that QA is the be all and end all to consultants' worries. Far from it. I fully appreciate that such is the state of the construction industry at present that there will inevitably be more closures — including the mechanical sector — before matters come to light.

"Unfortunately though, such pressure — far from stimulating an active and even aggressive response, often leads to pessimism. I readily admit that I have no time for such an attitude. I loathe moaners.

I don't have all the answers but there are ways and means of at least trying to avert disaster. QA is one such an aid in my opinion."

Who should control QA?

What particularly concerns Seamus Homan at present in respect of QA is that it is now — rightly or wrongly (he believes rightly) — accepted as an integral part of the building services contract. To date it has not been formally written in to the contract document but the UK is already heading in that direction. We too will go the same way and Seamus' fear is that the control and implementation of the QA process will fall into the hands of civil servants.

"What I suggest before it's too late", he went on, "is for an all-industry committee to be established which represents all the relevant interests in the building services sector and that it should set itself the goal of formulating a set of QA Standards before they are imposed on us from without".

But back to the subject of pricing which we touched on earlier. Seamus Homan is concerned at the manner in which "lowest price" would, in an ever-increasing number of instances, appear to be the governing criterion in awarding contracts. "Of course I accept the forces which stipulate effective cost control but, when all the fine-tuning is done there is a very definite bottom line, below which a tender price is simply a loss-maker. What's wrong with acceptable fees for a professional service? ... In too many cases ethics appear to have gone out the door".

"I admit that this can also apply to the other end of the scale. Exorbitant fees are equally wrong. Professionals in any industry have an obligation to treat clients fairly, and this includes acknowledging all market forces. We as consultants have no God-given right to a certain scale of fees ... we have to earn that right."

With that Seamus Homan once again realised that he was beginning to speak his mind and, as those of you who know him well will understand, he immediately shrank away from further comment, lest he appear to be pontificating or judgemental.

So we turned the attention on Seamus

Homan the person ... the figurehead who has built Seamus Homan Associates up to one of the most respected consultancy practices in the building services sector.

For someone who has spent nearly 35 years in the industry, one can only say that he wears it well. Seamus began — as so many of his now equally-successful contemporaries did — with Varmings back in 1954 when the practice had but eight people employed. At the time there were no recognised course as such in Bolton Street but he did, nonetheless, do whatever the then equivalent was in terms of building services. It was a sort of "invisible" apprenticeship he quips.

Emigration trail

He remained with Varmings until 1959 before emigrating to Birmingham to join a firm called Midland Heating & Ventilating so that he could gain some experience of the practical side of the business. Even then, he told us, he regarded both the design and practical aspects of the industry equally-important, a belief he has held to this day. Indeed, he has now broadened that attitude to incorporate the whole mechanical and electrical spectrum. He now believes that, what the educational system should be producing is "total" building services engineers.

But back to the early 1960s and Birmingham. While his intention in joining Midland was to get experience of the contracting side of the business, he still pursued the academic aspects, finally getting a local government grant to study full time in 1961. He studied "religiously" throughout the year, opting at the end to double up on examinations. Incidentally, he also found time to get married the same year.

At this stage he became especially

interested in air conditioning and, while the Homan practice as it stands today covers all aspects of the building services sector, he still has a special "grá" for this area. At any rate, on getting his exams he joined a firm called Matthew Hall and stayed with them from August 1962 to December of that year when he received an invitation to return to Dublin and rejoin Varmings. This he did in January 1963.

There he stayed for precisely 10 years during which time he gained invaluable experience. He remembers this as one of the happiest and busiest times of his career and regards it as the cornerstone upon which he achieved any future success. "However", he says, "after 10 years I had done all I could ... I needed a new challenge. In this, as in any other industry, you must always know your own worth and, in my case, it was definitely time for moving on".

Stage one

So, in 1973 it was no great surprise to find him linking up with Teddy Burke in a joint venture with Teddy looking after the contracting side of the business and Seamus doing the design work. However, despite his interest in contracting, this aspect of the business came more and more to the fore so, after approximately 5½ years, he and Teddy went their separate ways.

It was then he formed Seamus Homan Associates. The year was 1978.

Like all good success stories, what began as a humble, virtually one-man operation mushroomed into a thriving design practice. However, this growth was kept in check, primarily because of the belief Seamus has in being able to offer clients a personal service. There is no doubt but that the practice could be much

larger.

Instead, the design team has been contained to himself — and he is still very much involved in dealing with all clients at some stage on every project undertaken by the company — and two associates — Eugene Philips (mechanical) and Don Spollen (electrical). As one would expect, he fully acknowledges their contribution to the firm's success, but this is no empty compliment as their respective workloads testify.

Right from the outset computerisation played a major role in the development of the company's capabilities with Seamus even going so far as to write his own software. However, while he sees this as an area in itself which could be commercially exploited, he regards Seamus Homan Associates' future firmly pegged to the building services sector ... not the computer industry. Nonetheless, he will continue to develop programmes for use in work with his own clients.

Yet throughout all of this Seamus still has had time to get involved with CIBSE and then subsequently ASHRAE. He has done a tremendous amount of work on behalf of CIBSE and is now, as we indicated earlier, serving on the ASHRAE Programme Committee. In this capacity he has the advantage of studying all manner of reports and technical papers way in advance of their publication. This no doubt is an asset given that he himself also prepares and delivers papers to conference gatherings. Additionally, he is now ASHRAE's "corresponding member in Ireland", effectively, their man here.

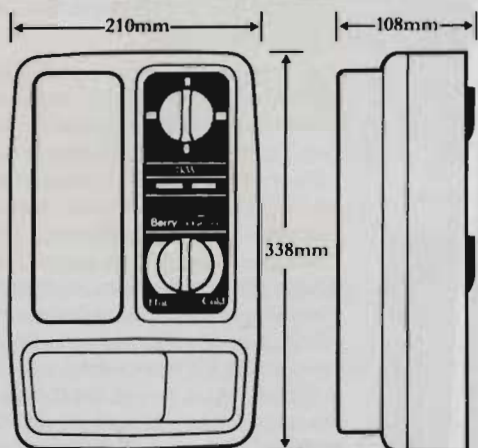
In turn, he performs a corresponding and equally-invaluable service for Ireland internationally; effectively, he is the building services sector's ambassador abroad.



• Seamus Homan pictured during the 1986 CIBSE/ASHRAE Conference with Richard A. O'Neil, Senior Research Specialist, Niagara Mohawk Power Corporation, USA; David Arnold, Partner, Troup Bywaters & Anders, UK; John Platts, Energy Sales Manager, The Electricity Council, UK; and Richard J. Hackner, WS Fleming Associates Inc, USA.

NEW PRODUCTS — LITERATURE

Technical Specifications



Electrical Loading
7.2kW, 240v AC, 30amps

Water Pressure
Minimum recommended pressure
15lbs/sq.in. on full power setting.

Water Connection
15mm (1/2" BSP)

Performance
At an incoming mains water temperature of 13°C (55°F) approximately, 4 1/2 pints per min. at 43°C (110°F) on maximum setting.
Stabilisation
Flow valve stabilises to approximately +/- 2°C over the range 15lbs/sq.in. to 85lbs/sq.in. incoming water pressure.

Berrymagicoal Showers

The Berrymagicoal range of instantaneous electric showers comprises two models — Model 372 (7kW) and Model 373 (8kW) — both of which incorporate the latest in technology housed in attractive cabinets suitable for bathroom and shower cubicle installation.

Every single unit off the production line is built to the latest British Standards and is rigorously tested using the most stringent techniques before leaving the factory for distribution. In addition to being designed and built to give continuous trouble-free service, they are also extremely economical to run.

The Berry 372 model, as well as having its own deep-well, integral soap dish, incorporates many extra features such as an automatic stabilising and anti-burst valve as standard; a temperature-sensing device which switches off

the heater element should the temperature rise for any reason; and another device which acts similarly should the water pressure fail.

It has three settings — maximum for the hottest shower; another for lower temperature washing; and the cold water selector.

Model 373 is somewhat similar but incorporates a mirror on the cabinet housing front, a high temperature safety device as back-up for the stabilising valve and a more powerful water flow of around 10% extra pressure.

Both models come complete with the riser bar which allows the handset to be positioned comfortably and easily for individual preference.

Details from Beaumark Ltd, Unit L1 Ballymount Drive, Walkinstown, Dublin 12, (Tel: 551384; 558188); Telex: 91394 (BUMK EI).

Acoustic Louvres

A new six-page colour brochure is now available from Industrial Acoustics Company featuring the recently launched "Continu-line" acoustic louvre. The brochure contains detailed specification and performance data, together with a range of project photographs illustrating how the product has been successfully utilised by specifiers.

The new continuous line louvre is the result of a successful collaboration between a number of architects and consulting engineers and IAC's building services division. The design concept for the louvre centred on combining standards of acoustic performance with a clean, stylish visual appearance, in tune with aesthetic trends in modern architecture. Due consideration has been given to the functional qualities of the louvre: noise reduction is a key feature, the effective attenuation of noise generated as air is drawn into or discharged from a building through the louvre. Robust, durable and weather resistant construction ensures long, maintenance-free service.

Maximum flexibility at the design stage is made possible due to availability of an almost infinite number of louvre module sizes and configurations. Fixing details have been specifically designed to ensure simplicity and ease of installation.

Special care has been taken to produce a design which has strong architectural appeal and the versatility to harmonise with a wide variety of building styles. In the past, ventilation apertures have been regarded as something of a necessary evil, the main objective in design terms being to reduce their intrusion on an overall design concept. IAC's Continu-line louvre has successfully been used as a design feature and presents



a wide variety of design possibilities. The louvre can be supplied in a broad selection of finishes and colours to contrast with, or blend into, a surrounding structure.

Copies from Industrial Acoustics Company Ltd, Walton House, Central Trading Estate, Staines, Middlesex, England TW18 4XB. Further details on the entire IAC range is available from Dan Chambers Ltd., 57/58 Brunswick Street, Dublin 7, (Tel: 720448/720555).

"Lyric" Corner Bath

The "Lyric" corner bath is elegantly designed to offer the luxury of a large corner bath but styled for the modern bathroom.

Measuring 1400mm, the "LYRIC" has a very distinctive shape, giving a large bathing area with moulded armrests and contoured backrest for total relaxation.

The "Lyric" is manufactured from 5mm high quality acrylic and is available in the full range of Shires' colours.

Details from Shires Ireland Ltd. Tel: 01-515877 or Telex: 31337.

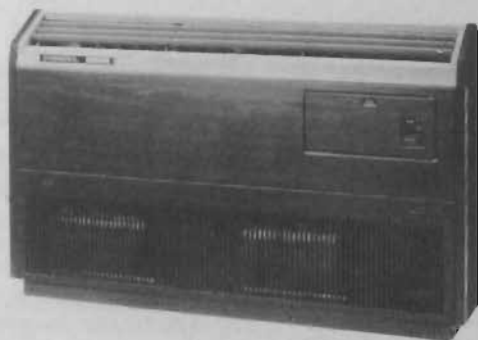
NEW PRODUCTS — LITERATURE

General Super Series

General's new 'Super' series is a range of air conditioners with many features carefully built in to create an environment of optimum comfort.

Super Wave is one of General air conditioners' super features. The wide air outlet designed with a built-in auto-louvre provides a powerful airflow. Smooth, sweeping lateral movements of the louvre deliver cool air evenly to all corners of the room. (Available for all floor and ceiling type models).

From the main components, such as the compressor and heat exchanger, down to the smallest parts, New Super Power demonstrates maximum efficiency and power saving. The result is an operation that delivers high power performance with small electricity consumption. A sweltering



• General Model No ASF - ISR floor type heating/cooling unit from Tempirle Services.

room can be quickly transformed at the touch of the switch.

Since the motor and auxiliary components, the primary sources of noise, are separately installed in the outdoor unit, air conditioner noise in the room is minimal — even in the "high" mode.

For details of the extensive choice offered by general — including heating/cooling models which can be floor, wall, ceiling or window mounted — contact Tempirle Services Ltd., No 1 Carysfort Avenue, Blackrock, Co Dublin, (Tel: 886739/-832980).

Controls Brochure

Roof Units of Dudley (West Midlands) has published a new four-colour, eight-page brochure detailing the wide range of controllers now available on ventilation products.

The brochure features single, three-phase automatic and manual speed controllers, thermostats, humidistats and starter units together with "Hotspot" motor protection — now standard in most company products.

Copies of the brochure are available direct from Roof Units Group, Peartree House, Peartree Lane, Dudley, West Midlands, DY2 0QU. However, for details on the full Roof Units range, contact Dan Chambers Ltd, 57/58 Brunswick Street, Dublin 7, (Tel: 720448/720555/720971).

How to test-drive a new boiler and keep your foot off the gas

For years boiler efficiency was measured at full output.

Now, sufficient data is available to confirm that commercial boilers spend most of their fired-up time attempting to match loads equivalent to 30-40% of full output. Not, as it were, with a heavy foot hard down continuously.

It's here that Econoflame boilers demonstrate their high efficiency in real terms — over seasonal or average period. The graph, based on independent research, shows Econoflame unbeatable at full output and way ahead under part load.

Which is why we are able to claim average savings of 20% gas.

There are seventeen models in the Econoflame range with output from 104 to 1,066 k/W.

All are suitable for either an open or sealed system and can be installed in virtually any part of a building including the roof.

Econoflame boilers are marketed through the Stokvis Energy Systems Division.

And while we can't offer you a test drive, we believe we have other ways to convince you.

Send for details.

EURO GAS LTD.

The boiler that pays for itself

1 Goldsmith Tce., Bray.

Tel: 868244/861729. Telex: 91015.

Please tell me more about Econoflame boilers.

Name _____ Position _____

Company _____

Address _____

Tel _____

DOMESTIC BOILERS

Increased Demand Creates Optimism

Despite the recessionary atmosphere which is having a detrimental effect on most areas of the building services industry, the word from the domestic boiler sector is of an increase in demand. It is not so great as to herald a boom period but, nonetheless, it is significant enough for the various distributors — and the principal fuel-supply sources — to be engaged in competitive advertising/promotional activity.

The latest CIF figures, coupled with those from the Department of Industry covering 1986, point to a fairly depressing scenario with a further fall off of 6% in construction activity forecast for 1987. Additionally, 3,000 jobs have been lost overall in the industry last year with a further 2,000 expected to go this year.

Additionally, a very large drop was experienced over 1986 in local authority housing,

despite a slight upturn in the private sector.

So, what has given rise to this measurable increase in the demand for domestic boilers?

The answer, it would seem, is again contained within the latest CIF figures which show private sector repair and maintenance activity up by 45%.

Coupled with this is the much higher public profile of all the fuel-supply sources. All are actively engaged (some more

so than others) in activities aimed at increasing their respective fuel consumption, primarily through central heating.

Nonetheless, should the following suggest a bias on the part of *HEV News* towards any one particular fuel type, we wish to make it clear that all interests — natural gas, LPG, oil and solid fuel — were approached for a contribution to this feature. Three responded with the LPG camp failing to produce information.

The Case for Coal — 'Not in Short Supply'



• The new full-burning fire which reduces smoke emission by up to 50% and significantly increases heat efficiency.

Coal, both nationally and worldwide, is not in short supply, nor likely to be for generations to come. Accelerated surveying programmes have uncovered new reserves of oil at a faster rate than we can burn the stuff.

The same emphasis has not yet been applied to coal discovery. All the same, from what we know and from what computer analysis allows us to presume, there are more coal reserves lurking in the ground

than we are going to be able to know what to do with, for centuries yet to come, writes Jim Maher, Managing Director, Coal Information Services Ltd.

It is without any doubt one of our most abundant and valuable — yet under developed — resources. (If the same technology were applied to coal throughout the world, there could be such an abundance of this natural mineral available), with all the attendant consolation and

assurance in the knowledge that no shortage of energy would exist anywhere or at anytime in the future. The emergence of new technology and appliances' design must cause us even here in Ireland, to consider seriously the development of these vast natural coal resources which we know are within and off our shores.

The Full-burning fire, invented by an Irish engineer, to burn bituminous coal,

smokelessly, is tremendously exciting and a cause for great satisfaction to the Irish coal trade.

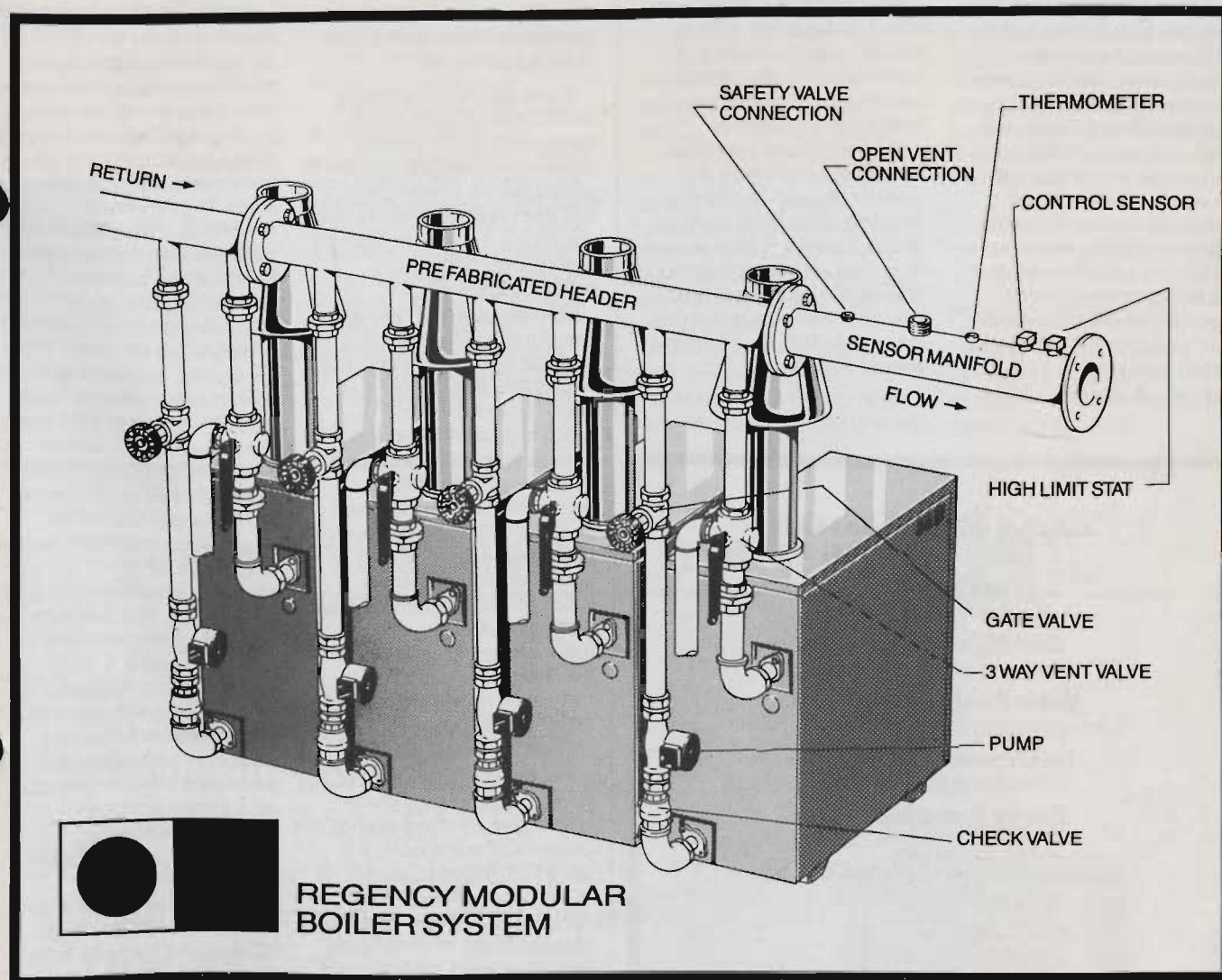
The Full-burning fire is first and foremost an open fire appliance, which has been developed over the past two years with the following remarkable characteristics: It achieves the optimum smoke reduction when burning the traditional housecoal. In fact recent tests on latest prototypes has achieved a reduction of smoke emission as high as 70%, and at this level smoke is not visible at the chimney termina,

The thermal efficiency is 50% which is higher than average efficiency of 45%, as related to high-output back boilers, according to IIRS. Having regard to improved figures, the user will find that the Full-burning fire can produce a significantly lower fuelling rate. There is little or no tendency to foul the heat transfer surfaces and it is anticipated that little or no cleaning will be required apart from annual flue sweeping. The production cost will be very close to the cost of an ordinary high-output back boiler. An important feature which adds considerably to its performance is a unique and patented damper system which leaves a constant and extremely small opening to the chimney

"THE COMPLETE MODULAR BOILER SYSTEM"

now includes

THE SINGLE PIPE HEADER PACKAGE



With these advantages:

HIGHER OPERATION EFFICIENCIES

achieved by the total isolation of water flow through the unfired boilers.

SIMPLICITY OF BOILER ISOLATION

The three way vent valve allows modules to be isolated from the system without the need for individual boiler relief valves and cold feeds.

REDUCED INSTALLATION TIME

using the MODULAR HEATING assembled pump kits and flanged pipework header package.



C&F Ltd., Unit G7 Chapelizod Ind. Est. Chapelizod, D. 20 Tel. (01) 264917.

DOMESTIC BOILERS

at any damper setting.

The patent application can also be applied to open fires with back boilers and this latter development can have very considerable appeal, so that householders can continue to enjoy the pleasure of the real coal fire in absolute confidence that the best environmental considerations are being observed.

Another very exciting feature of home heating is the newly-developed coal burning boilers, which can be fully-automatic and — according to their designers and manufacturers — have really great potential.

Coalflow, British Coal's new solid fuel heating package, has proved to be an unmitigated success. A number of new innovations are worth relating, about the Coalflow package. The first is a new generation of continuous-burning boilers based on an underfeed stoker developed at the Coal Research Establishment in UK. Fuel is automatically fed to the boiler,

via, a screw and ash drops from the retort into a reservoir to cool before disposal.

Another development automates ash removal and operates on the same principle as a vacuum cleaner. When the ash reservoir is full, the ash is simply sucked into a bag for easy disposal.

These very modern and highly-efficient coal burning appliances are developed to exploit the most economical energy resource. Coal as we stated, at the outset, is freely and abundantly available worldwide, with almost every country we can name boasting indigenous supplies.

Doesn't it make sense that we continue to explore for reserves through harnessing the latest technology and design features, so that we and future generations will continue to enjoy the pleasure of real coal fires. Statistics reveal that upwards to 90% of all homes in Ireland do so today.

Natural Gas — The Energy To Do It Better

Natural gas is the ideal fuel for cooking and heating in the home. The inherent qualities of the fuel — cleanliness, convenience, controllability — give every homeowner the opportunity for greater comfort. Also, within the last year, price reductions have made natural gas the most economical fuel all-round the home.

These distinct advantages are to be heavily promoted during the coming heating season. Many households use natural gas for cooking only and don't realise the economic advantages of using the fuel for heating their homes and providing hot water.

With the arrival of natural gas, the range of appliances available has greatly improved — practical benefits of a gas fire no longer mean a functional-looking appliance. Nowadays, natural gas fires are an elegant focal point for homeowners. There are inset fires, which are simply a bed of coals placed in an existing grate, but with real flames which are difficult to distinguish from the real thing — except that there are no ashes to clear the next morning, no coal to carry in on dreary winter evenings and no waiting for heat.

For all-round home convenience, natural gas is unbeatable. Firstly, the range of boilers is unmatched by any other fuel. Floor-standing boilers are available with conventional or balanced-fire arrangements or where space is at a premium, wall-mounted boilers are ideal. Both of these boiler types are compact and quiet-running and are designed to fit in with existing kitchen cabinetry, some even fitting inside kitchen units. And fan-assisted flueing arrangements made choosing-a-location even simpler.

Natural gas back boilers are a relatively new development, but are fast growing in popularity with homeowners. They enjoy the beauty of a living flame fire and really appreciate the convenience of

natural gas — providing central heating and hot water either together or separately and without the need to light a fire. The fire front is, of course ideal for instant warmth or chilly evenings when full heating is not required.

Promoting natural gas for all-round use is our task this season. Firstly, the cost advantages that accrue when natural gas is used for cooking, heating and providing hot water will be clearly defined to all homeowners living in gas areas. The benefits of cleanliness, convenience and controllability of natural gas will be advertised on TV, radio, and on outdoor posters.

To encourage the installation of natural gas heating appliances, a number of promotional packages have been developed for first-time central heating installation and for those changing over from solid fuel or oil. Overall, the messages that will be conveyed to customers are that natural gas is:

Fast: with natural gas you don't have to wait. You have heat and hot water where you want it when you want it — quickly. Clean: Clean and efficient in use, natural gas is over 99% pure methane. It means a cleaner house for you and because it is non-polluting, it also means a cleaner environment for us all. Convenient: Piped straight to your door, natural gas means no ordering or waiting on fuel delivers. You have heating and hot water at the flick of a switch — and no grates to clean out the next day. Controllable: You're in control with natural gas — instantly responsible flames for cooking and with gas fires — you choose gentle warmth or full heat — all at the turn of a knob. Versatile: Use natural gas for clean controllable cooking, convenient efficient central heating, instant hot water and elegant focal point fires. Economy: With natural gas supersaver rate, the all-gas homes means the lowest fuel bills.

Capital Oil Supplies Ltd.

Dublin 01 - 786244

Corrib Oil Ltd.

Galway 091 - 51311

Donegal Oil Co. Ltd.

Letterkenny 074 - 21633

Glen Fuel Services Ltd.

Kilmacanogue 01 - 861444 / 861361

Inishowen Oil Co. Ltd.

Carndonagh 077 - 74149

Kerry Petroleum Ltd.

Tralee 066 - 21155

Leinster Petroleum Co. Ltd.

Navan 046 - 21605

L.M.S. Oil Ltd.

Sligo 071 - 61253

Midland Oil Co. Ltd.

Athlone 0902 - 72020

Oriel Oil Co. Ltd.

Carrickmacross 042 - 61321

Shannonside Oil Ltd.

Limerick 061 - 28222

South of Ireland Petroleum Co. Ltd.

Cork 021 - 41841

Vale Oil Co. Ltd.

Thurles 0504 - 21811

Install these numbers in your diary for Shell Heating Oil supplies throughout Ireland.



DOMESTIC BOILERS

Oil — The Reliable Energy Source

In an ever changing energy scenario, it has been heartening to note that oil remains attractive to both domestic and industrial consumers. This attraction lies in its safety and economy which compares favourable with other automatic fuels, writes Vincent Duffy of Irish Shell.

Cost competitiveness will always be a feature in using oil due to the keen competition existing in the oil industry which compares favourable to dealing with an exclusive supplier.

The fear of supply difficulties may now be allayed due to the divergent sources from which oil is available both within and outside OPEC. Proof of this may be seen from the relaxed attitude adopted by most countries to the present conflict in the Gulf. Such would not

have been possible in the days when OPEC exerted almost exclusive control on oil supplies and when a world surplus of oil seemed an impossible dream.

This is the position in which the fortunate consumer now finds himself, and with further exciting developments ahead in the field of oil quality, the future looks indeed promising and interesting for oil users.

Research into combustion additives continues with exciting developments around the corner. Small proportions of metallic compounds as aids to combustion and flame stability, simulating refractory in motion, will be the likely outcome of this research. However, other work is also in train, such as continuous improvement in cold flow characteristics and continued optimisation of quality.

The pursuit of product excellence may already be seen in automotive fuel technological developments where engine and fuel manufacturers have made considerable progress. It is anticipated that similar advances will also take place in fuel and burner technology.

This will all contribute in a positive way to the further efficiency of oil fired central heating. The average house currently uses about 2,000 litres of fuel over a 30 week heating season, which at current values is equivalent to £447. As combustion and boiler efficiencies rise, even this attractive consumption will tend to improve.

Another area which is not often considered is the provision of summer domestic hot water from a central heating

boiler where the cost of having a full cylinder of hot water on permanent stand-by with copious hot water on tap, amounts to the equivalent of about 10 litres per week during the 22 weeks of summer, currently equivalent to £49.

All of the foregoing advantages combined with the non-polluting environmental factors and total internal and neighbourhood safety and security in using oil add up to an attractive package for every householder.

Product Availability

Brand and range details — as supplied by the product distributors — are contained within pages 22 to 27.

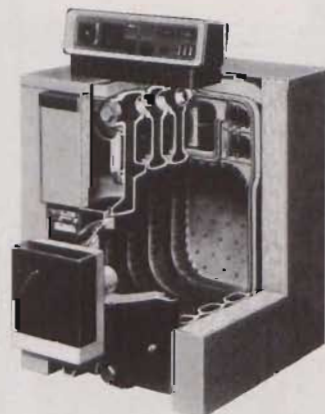
QUADRANT ENGINEERS LIMITED



Buderus Loganna 03.10 domestic boiler range outputs 17.5 to 94 KW available ex stock complete with matching Riello oil or gas burners.

Contact:

QUADRANT ENGINEERS LTD.,
Chapelizod, Dublin 20.
Telephone 01-265711
Telex 25283



DOMESTIC BOILERS

Keeping it Modular with C&F

The Regency Modular gas boilers have an operational efficiency in excess of 79% and they are sturdily designed of cast iron construction. They also carry a 5-year guarantee on sections.

C&F — who were appointed agents earlier this year — have considerable experience of the modular boiler heating markets are now in the happy position of being able to offer a complete package, comprising boilers, pre-fabricated multi-boiler pipework headers and boiler sequence control panels.

The Regency Modular boiler series is an atmospheric gas-fired, sectional boiler, constructed from high-grade cast iron. The cast iron sections are connected by nipples and

held together with tie rods running the full length of the boiler.

The base of the boiler is water-cooled to thermally insulate the combustion chamber from the boiler house floor, thereby improving overall operating efficiency. These waterways form an integral part of the water circulation through the boiler. The water-cooled base ensures a floor temperature of approx. 15°C above ambient.

Water connections are one 1 1/4" flange flow connection top rear and one 1 1/4" flanged return connection bottom rear. Mating flanges are provided suitable for 1 1/4" BSP connection.

An airspace is provided at the

base of alternate sections along the entire length of the boiler to provide even air distribution to ensure excellent combustion.

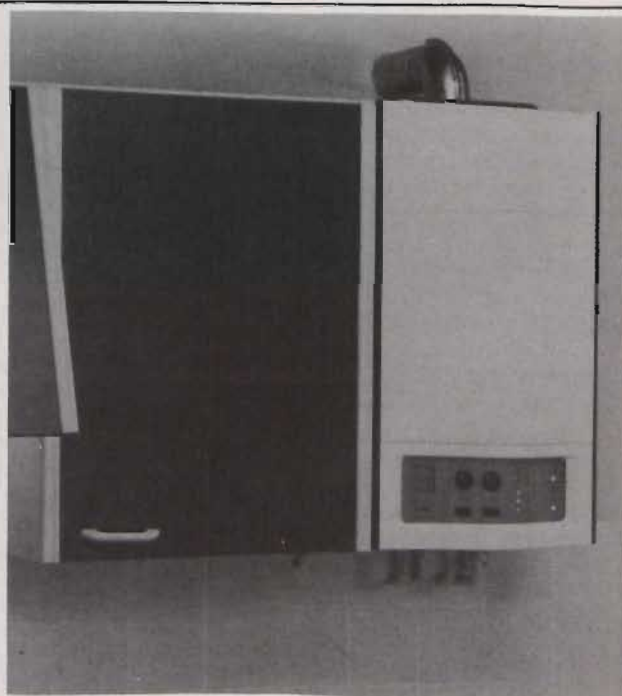
The burners are stainless steel aerated bars suitable for natural gas and L.P.G. Each module is supplied with drain cock and 3/4" gas cock.

The boiler, fully-insulated casing and hinged insulated door are stove enamelled on galvanised sheet steel, protected by a vacuum-applied polythene film which is removed on completion of installation. The draught diverter is manufactured from polished aluminium.

Each boiler module is supplied pre-wired with control thermostat, overheat cut-out device, piezo-electric ignition.

Mounted in the boiler fascia panel is a thermometer, an illuminated On/Off switch, pump run/valve open indicator, boiler run light and pump overrun or diverter valve delay timer.

Literature, together with additional information, is available from C&F Ltd, Chapelizod Industrial Estate, Chapelizod, Dublin 20, (Tel: 264917/264898), Telex: 31641.



JETMATIC G



Range rated oil fired pressure jet boilers



UNIDARE
makes life better

FINGLAS DUBLIN 11. Tel: (01) 771801 Telex: 31588.

Potterton Lynx — Attacking the Combi Market

Following on from their teaser advertising campaign, Potterton International have announced the arrival of the Potterton Lynx Electronic. Acknowledging that Combi's have been around for a long time, Marketing Manager Arthur Saxby commented: "Yes, Combi's have been around for over ten years but have been very slow to take off, up to now they have only captured about 8% of the total boiler market."

According to Potterton, Combi sales will really accelerate during the next four years, reaching 18-20% of all sales by 1990 and that growth

will not only be at the expense of electric storage radiators but, primarily that of traditional wall-hung units. There is also a sector who are replacing an old multi-point gas heater with a Combi, having then the opportunity of building up to a full central heating system at a later date when funds allow.

"Potterton looked long and hard at the market," says Saxby, "and in consequence developed the Lynx Electronic, a product that has been specifically designed to meet the needs of the installer and today's discerning Consumer."

Potterton research data has proved that the majority of Combi's will still be fitted in the kitchen and so have thoughtfully designed the unit to look attractive in either a

DOMESTIC BOILERS

modern or traditional setting. The classic lines of the Lynx Electronic are finished in super high resolution with contrasting twin Saluki Bronze trim panels and a matt, wipe-clean coloured fascia panel in which the control switches and LED indicators are situated.

Potterton have incorporated a specially developed two-in-one heat exchanger in the new Lynx Electronic. This carries both the hot water and the central heating water circuits and utilises existing heat within the exchanger when the system mode is changed from one circuit to the other.

Other energy-efficient features include an electronically-modulating gas valve which automatically matches demand between 80,000 Btu/hr and 30,000 Btu/hr and direct burner ignition which eliminates the need for a pilot light.

The new Potterton Lynx is fitted with sophisticated

electronics. A mother and two plug-in daughter circuit boards accurately control radiator and hot water temperatures. Colour graduated LED indicator lights on the fascia panel, enable the user to see at a glance the system mode and the full operating sequence. These will also provide a useful diagnostic tool for service engineers. The Lynx also incorporates an electronic boiler cycling reduction control for demands lower than 30,000 Btu/hr.

The Lynx Electronic has been designed to be fast and easy to install. With the aid of the template, the fully assembled unit is fixed straight into the wall with just three screws, and the flue located on top. For routine maintenance, the sensibly-designed layout is easily accessible by the simple removal of the inner casing.

Full details from Heatequip Ltd., Eurohaul Centre, Greenhills Road, Tallaght, Dublin 24, (Tel: 519711).

Beta Appoint C&F

The latest manufacturer to appoint C&F Ltd as a distributor here is BETA oil boilers. These are fully-automatic, pressure jet oil-fired boilers — "the ultimate in engineering and efficiency" state the manufacturers.

BETA oil-fired boilers are said to be durable, reliable and exceptionally quiet. They provide multiple flue options — conventional, room-sealed, low and high level. They feature plug-in electrics and are easy as 'A Beta C' to install and to service. They are fully warranted.

BETA pressure jet oil-fired boilers are now available in a range of five models, with outputs from model 12/15 which is a 14.7 kW giving 50,000 Btu/hrs, through,

model 15/20 at 60,000 and 70,000, right up to the 35/50 boiler which gives outputs of 130,000, 150,000 and a top rating of 170,000 Btu/h.

These boilers are fuelled by Kerosene and incorporate a Riello Mectron or an Electro-Oil inter burner. There are two flue sizes — 4" on the smaller output boilers and 5" on the larger models.

Details from C&F Ltd, Chapelizod Industrial Estate, Chapelizod, Dublin 20, (Tel: 264898/264917).

New Domestic Boiler from Clyde

Clyde Systems Ltd, Ireland's oldest and largest boiler organisation, has introduced a new domestic steel boiler manufactured in Ireland to British standard specification. It is available in two sizes — 70,000 Btu/hr and 90,000



BUILDERS PROVIDERS
Est. 1933

The Ideal Stelrad Range of Gas and Oil Fired Boilers

Ideal Excel

Light Weight Cast Iron Fan Assisted Boiler with Intermittent Pilot

Ideal Mexico

Floor Standing R/S or C/F for Natural Gas or Propane



6-8 Richmond Avenue,
Fairview, Dublin 3.
Telephone (01) 376076
Telex: 33587



DOMESTIC BOILERS

Btu/hr — and has a 5-year guarantee and is supplied complete with Clyde/Riello burner. The company claims it is the most competitively-priced unit on the Irish market and it is backed by the Clyde service organisation.

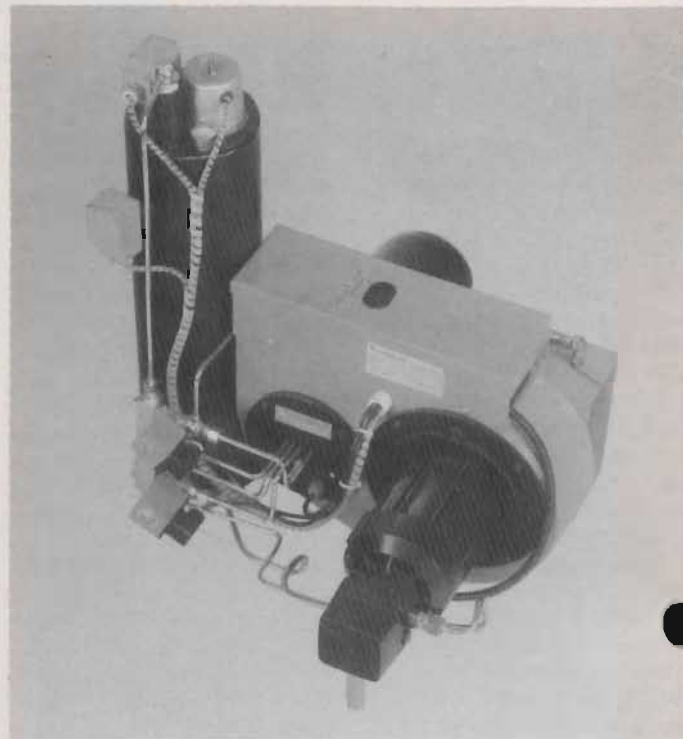
Additionally, Clyde Systems have introduced the new Ferroli Super Convector high output radiator. It is claimed to be the most efficient radiator available on the European market. This radiator has a 5-year guarantee and is compact in size with a very low water content. It is distinctive in appearance and should prove very popular. The outputs are guaranteed according to German DIN standard — the highest standards in the heating world.

Further details from Raymond O'Flynn, Managing Director, Clyde Systems Ltd., John F Kennedy Road, Dalbin Dublin 12, (Tel: 507844), Telex: 93305.

Home Value/AHL — Breaking New Ground in Boilers

Associated Hardware Ltd was founded in 1972 in a period of rapidly-changing trading practices in the hardware and builders providers fields. This was caused by the spread of the national and multi-national companies into the provinces and this was seen as a threat to the future of the family-owned hardware and builders providers merchants in these areas. The first few years were spent in establishing a strong base and establishing cohesion between the varying members of the Group in relation to purchases and in relation to identity.

Following on this, the AHL Group sourced products on a worldwide basis and has rapidly built up strong trading ties with virtually every corner of the world.



• AHL's Superheat range is sourced Thermovur of Milan in Italy. However, great lengths are gone to so that as much product as possible is home-produced.

"Franco-Belge & Hamco"

THE LEADING NAMES IN OIL-FIRED AND SOLID FUEL CENTRAL HEATING COOKERS.
For further information, contact:



HAMCO ENTERPRISES LIMITED

**TULLAMORE,
CO. OFFALY**
Telephone (0506) 21302
Telex 32270

Its annual turnover now exceeds £13 million per year and this even in these difficult times is still climbing slowly.

The two most recent additions to these direct sourcing activities of the Group has been the purchase from Denmark of the Superad radiators and also from Italy of the Superheat cast iron boiler and burner. All of these products are in the high-performance brackets and are also the most technically advanced boilers, burners and radiators currently on the market. The company chosen to supply the boiler and burner is Thermovur of Milan in Italy. They are one of the prime suppliers of boilers and burners on the Italian, German, Austrian U.K. and the Middle Eastern markets.

This gives the Associated Hardware chain of shops the capacity to quote their local customers at highly competitive prices for products which are superior to most products being offered by their competitors.

The sourcing of these products on a worldwide basis does not in anyway diminish the Associated Hardware Group's commitment to

sourcing as many products as possible in the Irish manufacturing and distribution market and to buy and sell Irish whenever and wherever possible.

Single stage gas/oil burners for normal boilers — Through modern technology and constantly-accurate testing, Superheat attains the goal of the 21st century — energy savings. According to these principles and bearing in mind essential elements such as advanced planning, quality materials, safe and noiseless operation, rapid installation and easy maintenance, Superheat has created a series of high quality burners to be considered burners of the third generation.

Energy savings are obtained through perfect carburation assured through the operation of two hydraulic command air regulators which automatically open the second stage air lock and an automatic closure valve when the burner does not operate. Superheat burners have passed approval tests 373/30-4-76 and 308/29-5-82.

Safety and silent operation — Superheat takes pride in the safety of its burners which are a direct consequence of a dual

DOMESTIC BOILERS

concept in design. Burners are equipped with controls built according to European safety norms and the dynamic shape of the air adduction parts assures silent operation.

Rapid installation is guaranteed by the simplicity of the electric and hydraulic components and the easy regulation of the combustion head. A special mobile flange permits choice of the best regulation.

Twenty years experience is the best guarantee.

NK Series gas/gasoil cast iron boilers — Superheat also

takes pride in the safety of its boiler products which are a direct consequence of a dual concept in design. Cast iron boilers are equipped with control apparatus (thermostat, manual re-set safety thermostat, thermometer) built according to European safety norms, silent operation is guaranteed by the shape of the combustion chamber.

Further details are available from Home Value (AHL) Ltd., Elmfield, Nine Lock Road, Clondalkin, Dublin 22, (Tel: 573583).

Mectron range of Riello burners and may be oil or gas fired.

All the boilers in the range are cast iron sectional and are supplied complete with an insulated, blue enamelled jacket, flanges and cleaning tools.

Further details on the entire Buderus range are available from Quadrant Engineers Ltd, Chapelizod, Dublin 20, (Tel: 265711), Telex: 25283.

Loganna By Buderus

Quadrant Engineers Ltd continue with their Buderus range of domestic boilers, Series Loganna 03.10.

This range is available in a number of sizes up to 94kW, the most popular sizes being 17.5kW and 25.5kW. As always, every boiler is offered with the

Unidare Jetmatic Boiler

Unidare plc has been successfully manufacturing oil-fired boilers for many years.

The current models incorporate the latest development in design and controls necessary to obtain the ultimate thermal efficiency and reliability of operation.

Two range-rated oil-fired pressure jet models are available. Both of them are suitable for interior or exterior (i.e. boiler-house use). For kitchen or utility room installation, an attractive acoustically insulated oyster pearl coloured stove enamelled casing is easily fitted.

The Jetmatic UJG Model which covers the range 19 - 26 kW. (65,000-90,000 BTU's/hr.) is fitted with the well known Riello Mectron Type 3BM burner giving a short wide

flame with high CO₂ readings over a wide range of shutter openings.

The larger Jetmatic UJC Model, which has a maximum output of 52 kW. (175,000 BTU's/hr.), is fired by the Selectos type D42 burner.

Both the Riello and the Selectos burners are suitable for use with kerosene or gas oil. Each is fitted with pre purge control and solenoid valve as standard.

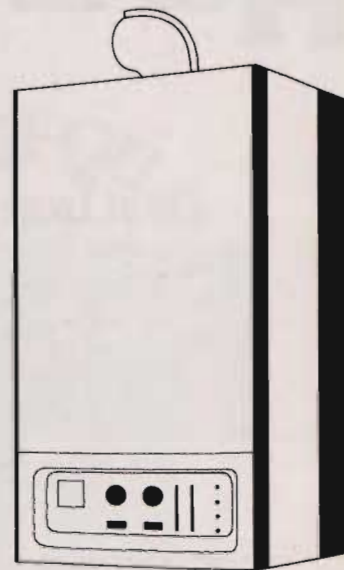
Dual boiler thermostats are fitted to ensure that the boiler is protected from overheating. Should the upper limit thermostat cut out, the reason for doing so should be discovered and the problem rectified prior to being manually reset.

There are two 1 1/4" BSP female flow and return on each side of the boilers to facilitate plumbing.

When correctly installed and

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DOMESTIC BOILERS

properly operated, these boilers are suitable for providing full central heating and domestic hot water for either the small three bedroomed house or the larger dwelling or even the small commercial building.

Unidare plc offers a free of charge commissioning service for both the jetmatic boilers and also offers a nationwide after sales service.

Unidare low-level flue terminal — Now the Unidare low-level flue terminal is available for use in conjunction with the Jetmatic UJG Model having a maximum output of 90,000 BTU/hr. This terminal dispenses with the need for a conventional chimney.

It has been designed mainly for use with the Unidare Jetmatic UJG, therefore the effective operation with other makes of boiler cannot be guaranteed.

Advantages of this unit are:

(1) Usually cheaper than fitting a conventional flue to an outside wall.

- (2) Quicker and neater installation,
- (3) High quality materials ensure very long life,
- (4) Built in silencer reduces flue noise.

NB: 28-second class C2 fuel Kerosene only should be used in a boiler which operates with this terminal.

Full details from Unidare plc, Finglas, Dublin 11, (Tel: 771801).

Quality Appliances from Hamco

Hamco Enterprises is a 100% private family-owned Irish company which has been trading successfully for over 20 years. Situated in Tullamore in a 20,000 sq ft factory/warehouse, Hamco supplies quality appliances throughout the 32 counties of Ireland and in the UK.

Hamco distributes (on a sole agency basis):

— Hamco oil-fired and solid-



• The new Hamco 2000 mark II high-output boiler with large fire box which gives cooking, hot water and central heating.

fuel central heating cookers for domestic use.

— Franco Belge oil-fired and solid-fuel central heating cookers for domestic use, New agency: De Dietrich cast-iron oil and gas-fired boilers for domestic/industrial use.

— Smoothline ve flue pipe,

— Regaflex stainless steel flexible chimney flue linings.

Ductpak DIY ducting,

— Argosy anti-down draught chimney cowl.

— Zebracier/zebraline range of cooker cleaners.

Hamco have been finding a switch back to oil-fired burning appliances in the last two years, due to its competitiveness, cleanliness, and controlability.

Full details on the extensive Hamco range are available from Hamco Enterprises Ltd, Tullamore, Co. Offaly, (Tel: 0506 21302/51207), Telex: 32270.

HOMEVALUE SUPERHEAT



**ASSOCIATED
HARDWARE
LIMITED**

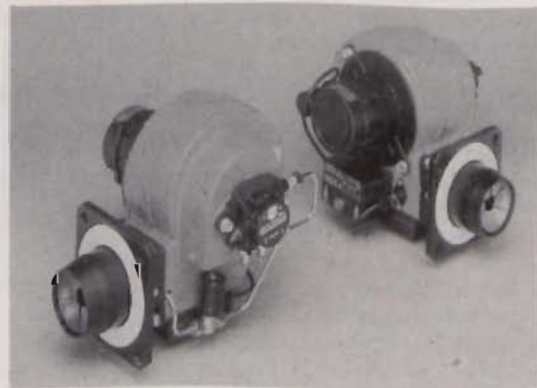
Cast Iron Boilers



NK23

NK18

Pressure Jet Burners



MR7

MR7

Available only from (**Homevalue**) stores nationwide:

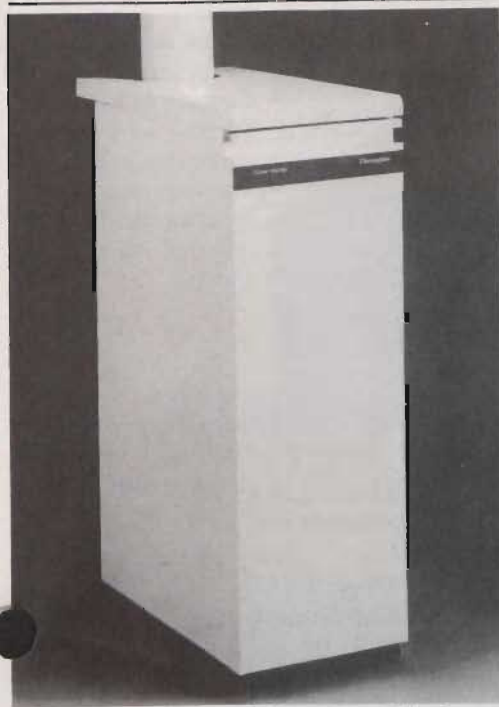
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Telephone (01) 573583**

DOMESTIC BOILERS



• New from Glow-worm is the smallest oil-fired central heating boiler yet – The Thermglow. Details from C&F Ltd.

Glow-worm Strikes Oil

Glow-worm is introducing a new range of oil-fired central heating boilers called Thermglow. The move into oil is seen by the company as a logical progression in the provision of a comprehensive range of central heating boilers enabling Glow-worm to offer the most complete range of boilers on the market. That is not all. The Thermglow is also claimed to be the most compact domestic central heating boiler available.

The new oil-fired boilers are based on the Hideaway range — Glow-worm's most successful free-standing boiler which, although launched only a short time ago, was quickly accepted into the marketplace, stimulating growth of the replacement sector and proving ideal for new installations.

The casing appearance of the new oil-fired boilers is based on the Hideaway. There is in fact no slimmer oil-fired boiler than the Thermglow available, which is why it fits neatly in between kitchen units to enhance any modern design schemes and takes up the minimum of space. Its size belies its efficiency which is around 80-82%.

There are four models in the

range, the smallest being the Thermglow 50 with output of 40-50,000 Btu/h and the largest the Thermglow 120 with output of 95-120,000 Btu/h. Thermglow 50, similar to models from the Hideaway range is extremely compact, but this oil-fired boiler measures only 900mm high x 300mm wide and 600mm deep and, even the Thermglow 120 is only a little larger, measuring 900mm high by 474mm wide and 600mm deep.

The Thermglow has a welded steel boiler jacket with cast iron flue, a proven electro-oil burner unit with sensitive control thermostat to give required temperature and is available to installers in two simple packages — one containing the burner and another with the shell, casing and pallet.

The two smaller models in the range are available from this month and the other two will become available later in the year. Installers are reminded that every one counts towards the 1988 Mystery Trip.

Full details from C&F Ltd, Chapelizod Industrial Estate, Chapelizod, Dublin 20. (Tel: 264917/264898), Telex: 31641.

Designer Models from Ideal Stelrad

The Ideal Stelrad range of gas-fired boilers is designed for today's kitchens, the following being a brief synopsis of the model types available from distributors Davies of Fairview.

— The Excel, a super-efficient, lightweight cast-iron boiler for open type, fully-pumped, systems in which no by-pass is required. With brown or white option front to meet your ideas in the modern kitchen.

— Ideal Stelrad Elan 2, with finned copper heat exchanger for use with open vented or sealed heating systems with new-design grey/white front panel.

In the fan-assisted range of the above, two boilers — an intermittent pilot light and automatic ignition — are included. Excel boilers are for

use with natural gas only, while the Elan 2 range is available for natural gas or LPG.

Ideal Sprint combination boilers, RS or fan-assisted models offer the advantages of instantaneous hot water plus central heating available for natural gas only.

The Mexico range of boilers comprises floor-standing models with two types being available — the Slimline for natural gas only and the Super for natural gas and LPG. In both cases CF and RS types are available.

Full details on all the ranges carried by Davies are available from Kevin Long at Davies Builders Providers, 6-8 Richmond Avenue, Fairview, Dublin 3, (Tel: 376076).

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PLUMBLINES



PLUMBLINES

What a brave man **Colum McCabe** is. For those of you who don't already know, Colum is the new General Manager of **New Dublin Gas**. Formerly Director, Customer Operations, with the ESB, Colum's loss to the Board will be sorely felt, especially so since he has played a major role in the company's programme of marketing reorganisation over the last few years. This task has all but been completed so it's not surprising to see Colum seeking a **fresh challenge**. But to take on the NDG job? Still, given the knowledge he has of the Board's new structures and indeed future marketing plans and intentions, who better than he to devise a strategy to **meet the challenge** head on on behalf of the gas industry.

Let's hope he won't be constrained from doing a similar job for NDG as he did for the ESB.

For those who don't know of his reputation, even the ESB's own in-house journal described the news of his departure — and especially to NDG — as breaking **"like a thunderbolt"** in his own Marketing Department; of frantic activity and telex messages finally **"confirming the unthinkable"**.

In summation, his former colleague — Marketing Manager Lewis Healy — says: "Colum's going makes it all the more necessary to sharpen



• The annual ME&BSA Trophy Outing, confined to member firms only, was played for in glorious conditions at Portmarnock Golf Club on Thursday 6th August 1987. Fittingly the Trophy was won by the newly elected President of the Association — Eamon McGratten — and his score also helped him achieve a life-time's ambition of playing off a single figure handicap. He is pictured here receiving his trophy from Teddy Bourke. Congrats Eamon.

still further our marketing capability to offset this new **high-powered weapon** which New Dublin Gas has acquired".

Coupled with **Bord Gais** taking control, can we now expect to see Colum McCabe **realising the potential** which the industry has always believed lay dormant somewhere deep within the bowls of NDG? Let's hope so.

I wish you well in your endeavours, especially in the coming months Colum, and make so bold as to advise you that the entire industry — from distributors, merchants and contractors alike — is on hand to assist and support you. **Do remember to consult with them.**

As for the contracting sector, I see that **Denis Walshe** of Grundfos has extended his contractor/counter hand competition to include **six holiday weekends** (for two) in

London as opposed to only two awards last year. The idea is to run the scheme over a three-month period with a draw being made each month — throughout September, October and November — and the lucky winners (See 'Contents' Page 1) also receiving **St£100** spending money. Entry forms are available at all participating merchants' outlets.

Talking of breaks, I'm sure **Dermot Spain** of GEC could do with one right now. Unfortunately, Dermot went down with **pneumonia** some weeks back and is only now getting back to health. Having suffered similarly myself a few years ago, I suggest Dermot that you take it very easy for at least another month or two. I wish you a speedy recovery to full health.

I passed by **Gerry Phelan's** new (relatively speaking)

premises on the Rock Road in Blackrock recently and noticed the very attractive new shopfront. Over the last four years or so Gerry has turned his business base right 'round and is now doing extremely well with heat pumps, the whole area of cooling and his air cleaner unit. Inside a nice **showroom** is also taking shape. It's worth a visit if your passing.

Back on the golf circuit, my congratulations to **Denis Kett**, the building contractor who won the inaugural Heatmerchants' perpetual trophy in Athlone. He was part of a party of approximately 60 **Heatmerchants'** guests for the entire weekend at the Royal Hoey Hotel in Athlone. Those involved represented building and heating contractors who deal with the seven Heatmerchants' outlets and as such they represented all corners of the

country.

The weekend was the brainchild of **Eamonn Walshe** but the golf on this particular occasion was organised by Heatmerchants' Athlone man, **Jim Casey**.

On a more serious note, I see that **John Duignan** is meeting the demands of the present difficult trading conditions head on by **expanding** his range to include hitherto untouched product areas. Some of these are in the "white goods" sector of the electrical industry but also included is an **electric heater** range branded **Super Ser**. A choice of wall-mounted or free-standing floor models is offered, each of which has been designed for maximum heat output at economical rates. Additionally, **safety features** complying with stringent requirements and carrying BEAB approval are also incorporated.

Best of luck with the new diversification effort John.

Finally, my best wishes to **Charlie Billings** who has recently joined H&V Distributors, Jimmy Boucher's outfit. Charlie is well known to many and tells me he is now enjoying a new lease of life renewing some old acquaintances as Sales Manager for H&V.

GRUNDFOS



HOLIDAY BONANZA!

FOR CONTRACTORS AND COUNTER HANDS

Calling all heating contractors and trade counter hands - win a weekend for two in London, plus stg£100 spending money - in the exciting **Grundfos Holiday Bonanza** promotion. Scheduled to run for a three month period over September, October and November 1987, the scheme offers six holiday weekends - one each for a **contractor AND counter hand** over each of the months concerned. Participation is simple. For every three UPS15-45 labels returned to Grundfos accompanied by the relevant entry form (available at all participating merchant outlets), the names provided go into a **monthly draw**. Closing date for receipt of completed entry forms each month is the 9th of September, October and November respectively. The draw will be made the following day with the winners notified immediately. Remember, when it comes to pumps you can rely on Grundfos - and win an **Autumn break in London**, one of the most exciting cities in the world.



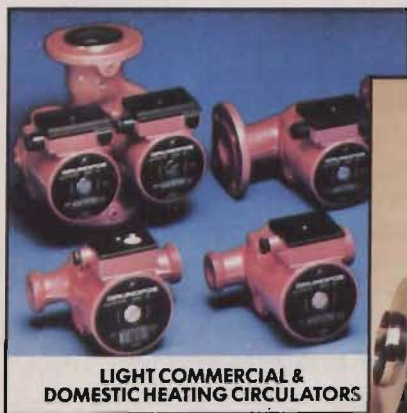
Contractor's Name _____
Address _____
Tel: _____

Merchant's/ Counter Sales Staff's Name _____
Address _____
Tel: _____

All entries to be returned to:-

Catherine Walshe, Grundfos (Ireland) Ltd., Unit 34, Stillorgan Industrial Park, Blackrock, Co. Dublin

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